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**RESIDENTS' SUPPORT FOR SUSTAINABLE TOURISM  
DEVELOPMENT AT A WORLD HERITAGE SITE: A CASE OF  
LENGGONG VALLEY**



**AHMAD EDWIN MOHAMED**

**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
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**RESIDENTS' SUPPORT FOR SUSTAINABLE TOURISM  
DEVELOPMENT AT A WORLD HERITAGE SITE: A CASE OF  
LENGGONG VALLEY**



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**A Thesis submitted to the Ghazali Shafie Graduate School of Government  
in fulfilment of the requirements for the Doctor of Philosophy  
Universiti Utara Malaysia**



Kolej Undang-Undang, Kerajaan dan Pengajian Antarabangsa  
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## ABSTRACT

Stakeholders' support especially local residents are crucial for the success of sustainable tourism development within a World Heritage Site (WHS). Without their support, it is very difficult for the government and destination management organizations to plan and develop WHS in a sustainable manner. Various problems were identified in the literature as a result of lack of support from local residents including costly future conflicts, retribution, hostile tourist-host relationship, vandalism, and unsustainable use of resources. Moreover, active opposition from the local residents has also been found to hamper development. Most importantly, existing studies on support for tourism development tend to focus on planning and development for tourism in general without specifying the types of tourism resources. On the other hand, this study focused on support for sustainable tourism development within WHS which were very limited despite its importance. The data in this study was gathered based on responses from self-administered questionnaires distributed to 401 local residents of Lenggong District. A number of factors were examined and found to influence support, including community attachment, local economic condition, and trust in government institutions, except for community involvement. Besides that, perception towards Lenggong Valley's WHS recognition was also confirmed to play both partial and full mediation on the relationships between the above factors and support for sustainable tourism development. In general, the result of analysis suggests that the majority of respondents have high support for sustainable tourism development within and around Lenggong Valley WHS. On top of that, this study has successfully utilised social exchange theory as the foundation in explaining residents' support for sustainable tourism development. The findings of this study could be used as a model of reference for government in assessing the local situations pertinent to residents' perceptions and support for sustainable tourism development in the case of WHS. The outcomes of the study may also be used in the formulation of appropriate planning and development strategies for heritage tourism via bottom-up approach.

**Keywords:** Support for Sustainable Tourism Development, Residents' Perceptions, World Heritage Site.

## ABSTRAK

Sokongan pihak pemegang taruh terutama sekali penduduk tempatan adalah penting bagi pembangunan pelancongan lestari di kawasan Tapak Warisan Dunia. Tanpa sokongan mereka, adalah sangat sukar untuk kerajaan dan pihak pengurusan destinasi untuk merancang dan membangunkan Tapak Warisan Dunia secara lestari. Pelbagai masalah telah dikenalpasti di dalam sorotan karya sebagai kesan daripada kekurangan sokongan penduduk tempatan seperti potensi konflik di masa hadapan, sabotaj, hubungan pelancong dan penduduk yang tidak mesra, vandalisme, dan penggunaan sumber secara tidak lestari. Selain itu, tentangan yang berterusan daripada penduduk tempatan juga diketahui menjadi penghalang kepada pembangunan. Paling penting, kajian lepas yang dijalankan ke atas sokongan terhadap perancangan dan pembangunan pelancongan adalah secara umum tanpa memfokuskan secara terperinci kepada jenis sumber pelancongan. Manakala kajian ini pula, memberi fokus kepada sokongan terhadap pembangunan pelancongan lestari di dalam kawasan Tapak Warisan Dunia, yang masih terhad dan tidak banyak dikaji meskipun ianya sangat penting. Data yang dikumpul dalam kajian ini diperolehi daripada maklumbalas 401 penduduk tempatan ke atas borang soal-selidik yang diedarkan di sekitar Daerah Lenggong. Beberapa faktor telah dikaji dan faktor yang mempengaruhi sokongan penduduk tempatan termasuklah hubungan dengan komuniti, keadaan ekonomi setempat, dan kepercayaan terhadap institusi kerajaan, tetapi tidak faktor penglibatan komuniti. Selain itu, persepsi terhadap pengiktirafan Lembah Lenggong sebagai Tapak Warisan Dunia juga didapati memainkan peranan pengantara samada secara separa atau penuh ke atas hubungan antara faktor-faktor di atas dengan sokongan terhadap pembangunan pelancongan secara lestari. Secara umum, keputusan analisis mendapati majoriti penduduk tempatan mempunyai sokongan yang tinggi terhadap usaha pembangunan pelancongan lestari di dalam dan sekitar kawasan Tapak Warisan Dunia Lembah Lenggong. Kajian ini juga telah mengaplikasikan teori tukaran sosial sebagai asas dalam menjelaskan sokongan penduduk terhadap pembangunan pelancongan lestari di Tapak Warisan Dunia dengan jayanya. Penemuan kajian ini juga boleh dijadikan sebagai model rujukan bagi pihak kerajaan dalam mengukur persepsi dan sokongan penduduk tempatan ke atas pelan pembangunan pelancongan lestari di kawasan Tapak Warisan Dunia. Hasil kajian ini juga mungkin boleh digunakan sebagai panduan dalam merangka strategi pelan perancangan dan pembangunan untuk pelancongan warisan melalui pendekatan bawah ke atas.

**Kata kunci:** Sokongan terhadap Pembangunan Pelancongan Lestari, Persepsi Penduduk, Tapak Warisan Dunia.



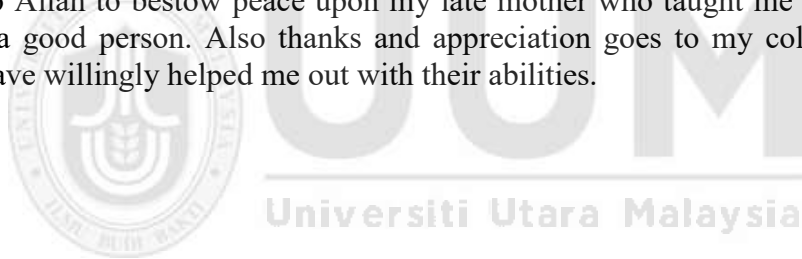
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## LIST OF ABBREVIATION

<b>ICCROM</b>	International Centre for the Study of the Preservation and Restoration of Cultural Property
<b>ICOMOS</b>	International Council on Monuments and Sites
<b>IUCN</b>	World Conservation Union
<b>KMO</b>	Kaiser-Meyer-Olkin
<b>PAF</b>	Principle Axis Factoring
<b>PCA</b>	Principle Component Analysis
<b>UNESCO</b>	United Nation Education, Scientific, and Cultural Organization
<b>UNWTO</b>	United Nation World Tourism Organization
<b>WCED</b>	World Commission on Environment and Development
<b>WHS</b>	World Heritage Site
<b>WTO</b>	World Tourism Organization



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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

This chapter consists of background of the study, problem statement, research questions, research objectives, significance of study, and operational definition of terms involved in this thesis.

### **1.2 Background of the Study**

The development of sustainable tourism is crucial especially within World Heritage Site (WHS). It is because WHS represents a nation's legacy which often irreplaceable. If WHS is not managed properly, the degradation and complete destruction of the heritage properties may occur. Therefore, United Nation Educational, Scientific, Cultural Organization's (UNESCO) World Heritage Centre has laid out various strategic plans for heritage conservation with the cooperation of its member countries. Thus far, there are 191 countries that have signed The Convention Concerning the Protection of the World Cultural and Natural Heritage 1972 mainly for the identification, nomination, and protection of WHS under their territories (UNESCO, 2014).

Besides the convention, UNESCO World Heritage Convention has also adopted the sustainable tourism development principles. This development approach originated from a report entitles 'Our Common Future' or also known as the Brundtland Report in 1987. The idea for sustainable development came after global environmental crisis in

the 50s and 60s (Sharpley & Sharpley, 1997). All major industries are encouraged and at times are regulated to follow practices that confirm to sustainable development principles. In consequent, United Nation World Tourism Organization (UNWTO) has also agreed to adopt the principles of sustainable development in the tourism industry. It is a right decision by UNWTO to adopt this principle as “there is no other forms of development that tentacles so far reaching as does tourism” (Gunn, 1994, p. 16). In other words, the impacts of tourism are multifaceted, including economic, socio-cultural, and environmental aspects. Therefore, the main objective of sustainable development according to World Commission on Environment and Development (WCED) is “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 41).

Today, the principle of sustainable tourism is also the criteria used in developing management plans or programmes with regards to WHS under UNESCO (Pedersen, 2002). The application of sustainable development entered the UNESCO World Heritage Convention’s Operational Guidelines in 1994. This is followed by the Budapest Declaration in 2002 which highlights on the needs to “ensure an appropriate and equitable balance between conservation, sustainability and development, so that World Heritage properties can be protected through appropriate policies contributing to the social and economic development and the quality of life of our communities” (UNESCO, 2014, para 14). In addition to that, the role of community has also been recognised as part of sustainable tourism development under UNESCO World Heritage Convention in 2007. This signals the importance of local communities in the development and management of a WHS.

Achieving sustainable tourism development however is very difficult without the cooperation and support from stakeholders especially the local residents (Aas, Ladkin, & Fletcher, 2005; Deery, Jago, & Fredline, 2012; Gursoy, Jurowski, & Uysal, 2002; Lane, 2005; Lee, 2013; Sutawa, 2012). Tourism development often creates negative impacts on the destination, thus making local residents opposing them. Residents' opposition will be costly and may jeopardize the future of tourism in the long run. They may also become antagonistic towards the tourists, and this is not healthy for tourism destinations. In fact, Gursoy and Rutherford (2004) argued that active opposition from the local residents could halt development. Within WHS, the lacks of cooperation and support have also caused the destruction of many cultural properties (UNESCO-ICOMOS, 2008). Therefore, the success of sustainable tourism development greatly lies on the support of the local residents (Nunkoo & Ramkissoon, 2011a). Sustainable tourism development also requires active involvement of local residents in the decision-making process and in the benefits of tourism which may lead to increasing support.

In Malaysia, there are currently four UNESCO WHS namely Gunung Mulu National Park (designated in 2000), Kinabalu National Park (designated in 2000), Georgetown and Melaka Historic Cities of the Straits of Malacca (designated in 2008), and the latest, the Archaeological Heritage of the Lenggong Valley (designated in 2012). All of these heritage sites are under the purview of the National Heritage Department of Malaysia and enviously protected by the National Heritage Act 2005. The designation of these sites as world heritage has elevated the country's image and boost tourist arrivals significantly. Georgetown and Melaka Historic Cities for example recorded a total of 4.6 million visitors and 3.1 million visitors respectively in 2005 (Ministry of Culture, Arts & Heritage, 2007). This created huge economic benefits to these destinations in

terms of employment, business opportunities and physical development. According to UNWTO about 40 percentage of travel made were driven by cultural motives (Timothy & Boyd, 2003). This indicates that heritage tourism is becoming the current trend in travel which has gradually shifted from the traditional mass tourism.

The role of tourism as a powerful force on rural economic development has also been recognised by local governments, researchers and alike in many countries (Abdul Aziz, Jaafar, Hassan, & Kadi, 2014; Fun, Chiun, Songan, & Nair, 2014; Long, 2012; Mair, Reid, & George 2005). Lo, Ramayah, and Hui Hui (2014) also pointed out that tourism in rural area becomes the catalyst of growth for local businesses and create employment opportunities. It promotes the demand for craft works produced by local people which is common in many tourist destinations. Thus, when a WHS is situated in a rural area, it is expected to bring benefits to rural development and communities that live in areas that surround the WHS through tourism. This expectation also applies to Lenggong Valley that is located in the rural area of Hulu Perak, Malaysia. Lenggong Valley is one of the prime archaeological sites in Malaysia besides Bujang Valley. Researches and excavations within these sites produced significant archaeological finds that not only about the pre-historic knowledge of Malaysia, but also for the rest of South East Asia. Thus far, the number of tourist visitation recorded was 84,000 visitors in 2013 based on the data from the Lenggong Archaeological Museum (2014). This number is expected to grow further in the future once Lenggong Valley's promotion and awareness programmes started to take place following its designation as WHS in July 2012.



### 1.3 Problem Statement

There have been a wealth of literature on support for tourism development from residents' perspectives (Ap, 1992; Gursoy, Chi & Dyer, 2009; Gursoy et al., 2002; Gursoy & Rutherford, 2004; Jurowski & Gursoy, 2004; Nunkoo, 2015; Nunkoo & Gursoy, 2012; Sharpley, 2014; Sinclair-Maragh & Gursoy, 2015). This indicates the sheer importance of understanding residents' responses to tourism development. Lack of support from local residents will lead to costly future conflicts, retribution, hostile tourist-host relationship, and unsustainable use of resources (Maikhuri, Nautiyal, Rao, & Saxena, 2001; Nicholas, Thapa, & Ko, 2009; Nunkoo & Ramkissoon, 2011a; Ribeiro, Vareiro, & Remoaldo, 2012). In addition, active opposition from the local residents could also potentially hinder or stop development (Gursoy & Rutherford, 2004).

Despite abundance of studies in this area, the literature on residents' support for sustainable tourism development in the case of WHS however have been very limited (Jimura, 2010; Nicholas et al, 2009, Rasoolimanesh, Jaafar, Kock, & Ramayah, 2015). Thus, the construct that actually constitutes support for sustainable tourism development in relation to WHS remains to be developed and tested (Nicholas et al., 2009). Likewise, Jimura (2010) also claimed that there is also generally a lack of study that examines local residents' views about tourism development in and around WHS. Majority of studies on WHS have been focusing on the tourists' perspectives including travel motivation, satisfaction, and visitor management (Hall & Piggin, 2003; Kim, Wong, & Cho, 2007; Leask & Fyall, 2006; Nyaupane & Timothy, 2010, Poria, Butler, & Airey, 2003; Tuan & Navrud, 2008).

In line with the above, the literature on the factors that influence support for sustainable tourism development within WHS area have also been inconclusive. Related studies in this area have suggested a number of factors including community attachment (Gursoy et al., 2009; Gursoy & Rutherford, 2004; Lee, 2013), community involvement (Adrian, Koenig-Lewis, & Jones, 2013; Nicholas et al., 2009), perceived local economic conditions (Gursoy et al., 2009; Gursoy et al., 2002), trust in government (Nunkoo, Ramkissoon, & Gursoy, 2012; Nunkoo & Smith, 2013), and perceptions towards tourism (Rasoolimanesh et al., 2015; Sharpley 2014). These factors could be applied in understanding residents' support for sustainable tourism development in the context of WHS.

The above factors were also included to reflect the social exchange theory. According to social exchange theory, in order for an exchange to occur, an actor must evaluate the consequence of such action (Ap, 1992). For instance, positive perceptions will result in support for sustainable tourism development and vice versa. Besides that, trust in government institutions is also the key to an exchange process (Blau 1964; Kayat, 2002; Nunkoo & Ramkissoon, 2012). Without trust, the exchange process between exchange actors would not occur. Thus, residents will leave the exchange and distance themselves from tourism development. However, despite the important of trust in explaining the exchange process, it has been largely omitted in the past studies (Gursoy et al., 2009; Gursoy & Rutherford, 2004; Hanafiah, Jamaluddin, & Zulkifly, 2013; Jurowski & Gursoy, 2004; Lee, 2013; Nicholas et al., 2009). Jurowski, Uysal, and Williams (1997) further improved social exchange theoretical framework by including community attachment as one of the factors that influence exchange process. However, there have been inconsistency of results with regards to the influence of community attachment

towards residents' perceptions and support for sustainable tourism development (Lee, 2013; Nicholas et al., 2009; Rasoolimanesh et al., 2015).

Other factors the likes of community involvement and perceived local economic condition although were not explicitly mentioned in the social exchange theoretical framework, but are still important to predict residents' support (Adrian et al., 2013; Nicholas et al., 2009; Gursoy et al., 2009; Gursoy et al., 2002). Previous studies suggest that highly involved residents often perceive tourism as beneficial to them and this lead to further and continuous exchange in line with what postulated by social exchange theory (Aas et al., 2005; Ap, 1992; Bramwell & Sharman, 1999; Getz, 1994; Jurowski et al., 1997; Ritchie, 1988). Likewise, residents who live in poorly developed regions of the country, will most likely accept tourism as an economic catalyst for the development of the local area (Akkawi, 2010; Pakurar & Olah, 2008).

In addition, this study also attempts to further understand the mediating roles of perceptions towards WHS on the relationships between the independent variables (i.e. community attachment, community involvement, perceived local economic condition, trust in government institutions) and support for sustainable tourism development. The outcomes of previous studies have indicated a series of inconsistencies about the role of residents' perceptions as mediating variables (Gursoy et al., 2009; Gursoy & Rutherford, 2004; Vargas-Sánchez, Plaza-Mejía, & Porrass-Bueno, 2009; Nunko & Ramkissoon, 2011a; Nunkoo & Ramkissoon, 2011b). According to Baron and Kenny (1986), a mediation often occurs in the relationship between predictor and criterion variables. The third factor, known as 'organism' plays significant role in explaining the relationship between predictor and criterion variables as theorised by stimulus-

organism-response (S-O-R) model (Donovan & Rossiter, 1982; Mehrabian & Russel, 1974). In other word, such relationship may not exist without the explanatory power of the third factor as proven in recent studies conducted by Lee (2013) and Nicholas et al. (2009).

Most importantly, the inclusion of all the above variables contributes to the development of a newly revised theoretical framework based upon social exchange theory. In fact, all the above variables have never been incorporated simultaneously into a single study. Hence, there is a need for a study that builds upon existing but limited body of knowledge concerning factors that affect support for sustainable tourism development in the context of a WHS. Additional research is also necessary given the different geographical locations, socio-cultural and political settings to reinforce the previous researches, especially the applicability of the social exchange theory.

The above statement is also supported by many scholars which in consensus disagree with the pre-supposition that sustainable tourism development issues are identical from one destination to another (Bramwell & Sharman, 1999; Lee, Kang, Long, & Reisinger, 2010). Literature argues that place specific characteristics and locality context must be addressed in this kind of study (Nunko & Gursay, 2012; Sharpley, 2014). This is attributed to the debates that perceived impacts of tourism often influenced by various factors including socio-economic, political, and geographic characteristic of a destination (Chen & Chen, 2010; Nunkoo & Ramkissoon, 2011a; Sirakaya, Teye & Sönmez, 2002).

In addition, Sirakaya et al. (2002) also stressed that the variables which influence support for sustainable tourism development is different between developed and developing countries. Thus, despite various studies on resident support for tourism in the west, a similar study in other parts of the world especially within developing countries is also required. For example, a study by Jimura (2010) suggests that residents in WHS destination in Japan are somewhat critical of tourism development in the WHS zones. Even within developing countries, most studies on this aspects have been focusing on well-developed regions. Very little studies have been conducted to assess tourism development from residents' perspectives in under-developed destinations, especially in rural areas (Chen & Chen, 2010; Rasoolimanesh & Jafar, 2016; Rasoolimanesh et al., 2015). Such efforts will be able to identify which factors could apply in other destinations with different stages of tourism development, especially in the case of Lenggong Valley.

#### **1.4 Research Questions**

Based on the discussion of problem statement, the following research questions were formulated:

1. What is the relationship between community attachment and support for sustainable tourism development in the WHS area?
2. What is the relationship between community involvement and support for sustainable tourism development in the WHS area?
3. What is the relationship between perceived local economic condition and support for sustainable tourism development in the WHS area?
4. What is the relationship between trust in government institutions and support for sustainable tourism development in the WHS area?

5. To what extent does perception towards WHS designation mediate the relationship between community attachment, community involvement, perceived local economy condition, trust in government institutions, and support for sustainable tourism development?

The above research questions were then translated in the following research objectives.

### **1.5 Research Objectives**

This study aims to examine local residents' support for sustainable tourism development in the Lenggong Valley WHS. In line with the above research questions, the objectives are broken down into the following:

1. To investigate the relationship between community attachment and local residents' support for sustainable tourism development in the WHS area.
2. To investigate the relationship between community involvement and local residents' support for sustainable tourism development in WHS area.
3. To investigate the relationship between perceived local economic condition and local residents' support for sustainable tourism development in WHS area.
4. To investigate the relationship between trust in government institutions and local residents' support for sustainable tourism development in WHS area.
5. To evaluate the mediating effects of perceptions towards WHS designation on the relationship between the above independent variables and support for sustainable tourism development in the WHS area.

## **1.6 Significance of the Study**

This study has both academic and practical contributions. The major contribution relates to the work done to identify the independent variables that likely to influence the local residents' support for sustainable tourism development in Lenggong Valley WHS. In this study, the influences of community attachment, community involvement, perceived local economic condition, and trust in government institutions were tested against support for sustainable tourism development. Such analysis contributes to the literature in determining the most influential variable amongst all of the above. In addition to that, this study was also able to measure the mediating role of perceptions towards WHS designation on the relationship between independent variables and support for sustainable tourism development. Understanding mediating variable may solve some of the inconsistencies occurred in the literature on the variables that explain the variance in support for sustainable tourism development (Lee, 2013; Nicholas et al., 2009).

Most importantly, the inclusion of trust in government institutions as one of the independent variables may also provide empirical evidence that supports the proposition by several scholars who argue that the exchange process will likely to occur when there is trust between the exchange actors (Blau, 1964; Kayat, 2002; Morgan & Hunt, 1994; Nunkoo & et al., 2012; Sheppard & Sherman, 1998). Trust between the actors in the exchange process, which in the case of this study referring to the relationship between the local residents and the government institutions responsible for sustainable tourism development is crucial for the future development of Lenggong.

In overall, the broad contribution of this present study is to advance the body of knowledge in heritage management. Thus far, very little empirical studies on heritage

have been conducted albeit the significance of heritage from cultural, historical, scientific and economical perspectives. In addition to that, most studies on heritage have been focusing on the demand side particularly visitor behaviour, satisfaction, motivation and quality of experience (Nyaupane & Timothy, 2010; Poria et al., 2003; Tuan & Navrud, 2008). More studies on the supply side (e.g. resident involvements, community attachment, attitudes towards conservation, and sustainable tourism development) around WHS are required to better understand this area of tourism attitude studies.

Lastly, from practical point of view, this present study may become a model of reference for government institutions in assessing the local situation pertinent to local residents' perceptions and support for sustainable tourism development in the case of WHS. Such understanding is important in formulating appropriate planning and development strategies for heritage tourism. It also provides the government with the bottom-up approach in heritage tourism policy by gathering the local communities' concerns and reactions. Without this sustainable approach in mind, costly future policy conflicts may arise. Such conflicts between the authority and local communities will greatly affect the integrity of heritage properties. Most importantly, the designation of UNESCO WHS is a rare privilege and represents a symbol of universal importance. Malaysia, a nation that depends heavily on tourism has relatively small number of WHS sites compared to its neighbour the likes of Indonesia, Thailand, and Philippines. Safeguarding these scarce WHS through sustainable development is crucial in order to place Malaysia at par with other cultural heritage destinations.



### **1.7 Scope of the Study**

This study investigated the relationship between independent variables, mediating variables and support for sustainable tourism development. The independent variables under study were community attachment, community involvement, perceived local economic condition, and trust in government institutions. Meanwhile, the mediating variable tested was perceptions towards WHS. These variables were included in this study for two reasons. First, past findings indicated a series of inconsistencies in terms of their relationships with support for tourism development. Secondly, a couple of variables especially perceived economic condition and trust in government have received very little attention in the literature, thus require further examination.

This study limited its scope by eliciting responses from local residents with regards to their support for sustainable tourism development in WHS area. The responses were gathered using self-administered questionnaires distributed amongst households living in villages within Lenggong District. Other stakeholders including the government agencies, business operators, tourism industry, and local cottage industry were not included in this study as tourism is relatively new in Lenggong. On the other hand, the local residents became the only focus of this study because they were considered as the key stakeholder that can greatly affect and being affected by tourism development.

This research design follows hypothetico-deductive method which is apparent in quantitative research. This method starts with hypothesis formulation founded on social exchange theory and followed by data observation to confirm or disconfirm the hypothesis. Quantitative research relies on numerical data that represents responses gathered from questionnaire survey. This method provides shallow but generalised

results from a larger sample. Quantitative data also enables further analysis that establishes cause-and-effect relationship, which is the main objective of this study.

Lenggong Valley as the latest edition in Malaysia's WHS list was chosen as the study site. Lenggong Valley is an archaeological site located in rural area of Perak, Malaysia mainly dominated by traditional economic activities the likes of agriculture, timber and mining with little tourism activities at this time. While many studies on perceptions toward WHS have been conducted in urban areas, yet very little have been done in the context of WHS in the rural area. Studying Lenggong Valley will provide some indications about the readiness and perceptions of people in rural area about WHS designation and sustainable tourism development.

## **1.8 Definition of Terms**

The important terms used for this present study are explained below:

### **1.8.1 Support for Sustainable Tourism Development**

Based on social exchange theory, residents' support for sustainable tourism development could indicate their willingness to enter into exchange as a result of evaluated consequences (Ap, 1992). In this study, the operationalization of support is - residents' endorsement and inclination towards sustainable tourism development's policies, programs, plans, projects, and any social change processes invoked by those interventions. In particular, the operationalization of this construct covers residents' inclination to participate in tourism planning and development processes, conservation of local heritage properties, and most importantly, tourism-related economic activities. It is in line with sustainable tourism development principles that strive to find "a

balance economic prosperity, environmental protection, and social equity” (Chen & Chen, 2010, p. 526).

### **1.8.2 Community Attachment**

Conceptually, community attachment is defined as “the extent and pattern of social involvement and integration into the community, and sentiment or affects towards the community” (McCool & Martin, 1994, p. 30). In this study, the dimensionality of community attachment covers aspects such as friendship and kinship networks, and formal and informal association ties rooted in family life and on-going socialization process adapted Kasarda and Janowitz (1974).

### **1.8.3 Community Involvement**

Community involvement is defined as to what extent the local people are involved in tourism industry. Operationally, it covers two main aspects “involvement in the decision-making process and in the benefits of tourism development” (Timothy, 1999, p. 372).

### **1.8.4 Perceived Local Economic Condition**

Perceived local economic condition refers to how local residents evaluate the condition of local economy according to both quantitative and qualitative aspects including human capital, critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, health, safety, literacy and others (Mathieson & Wall, 1982). In this study, the operationalization of this concept focuses on the current job and businesses availability in the destination as modified from Gursoy and Rutherford (2004). The idea is that the when the local residents need more job and business

opportunities, it indicates that the local area is still in poor economic condition and vice versa.

### **1.8.5 Trust in Government Institutions**

In general, according to Rousseau, Sitkin, Burt, and Camerer (1988, p.135), trust can be explained as “psychological state comprising the intentions to accept vulnerability based upon positive expectations of the intentions or behaviour of another”. In line with the above, this study operationalizes trust as the confidence that the public has on related government institutions to properly carry out tourism development that will benefit the local residents with minimum negative consequences.

### **1.8.6 Perceptions toward WHS**

Reisinger and Turner (2003) defined perception as “a process by which people see the world around themselves” (p. 149). This study in particular is interested to capture local residents’ views and judgements towards the WHS designation from both the benefits and costs aspects.

## **1.9 Organization of the Thesis**

The structure of this thesis is divided into 5 chapters. First chapter provides an overview of the study area, problem statements, research questions, objective of the study, significance of the study, scope of the study, and definition of terms. Second chapter consists of important literature reviews on support for sustainable tourism development. In addition to that, this section also covers the discussions on various factors affecting the above support the likes of community attachment, community involvement, perceived local economic condition, trust in government institutions, and perceptions

towards WHS designation. At the end of second chapter, the hypothesis propositions and subsequently the theoretical development of the study are presented based on extensive literature reviews. The third chapter consists of methodologies utilized in achieving the objectives of the study including the research design, description of population and sample, research instrument, procedures of data collection and analyses of quantitative data. Fourth chapter in turn presents the results of the study especially the hypotheses testing, analysis and discussion. Finally, fifth chapter provides a summative analysis and recommendation for future study.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the literature of the following areas: The background of Lenggong Valley, the concept of sustainable tourism development, World Heritage Site, support for sustainable tourism development and its influencing factors - community attachment, community involvement, perceived local economic condition, and trust in government institutions as the independent variables; meanwhile perceptions towards WHS as the mediating variable. In addition, social exchange theory was also discussed to support the theoretical foundation of this current study.

#### **2.2 The Archaeological Heritage of the Lenggong Valley**

The WHS under examination here is situated in Lenggong, a sub-district within Hulu Perak. It is located about 100 km to the north-east of Ipoh on the Kuala Kangsar to Grik road (see figure 2.1). It has been an important archaeological site in Malaysia following various significant excavations within its territory. Until today, it is still under-developed rural area mainly dominated by agricultural, mining and logging activities. Only recently, some tourism activities have been recorded though not very significant. Using tourist arrival data collected at Lenggong Archaeological Museum as an indicator, shows a total of 84,000 visitors recorded in 2013 (Lenggong Archaeological Museum, 2014). Back in December 2009, The Department of National Heritage Malaysia announced its plan to nominate the Archaeological Heritage of Lenggong

Valley (or in short, Lenggong Valley) as the next UNESCO's WHS after Melaka and Georgetown (The Star, 17<sup>th</sup> December 2009). The department's commissioners explained that Lenggong Valley has contributed many important findings to the world's archaeology. After almost three years of documentation, on July 2<sup>nd</sup>, 2012, Lenggong Valley was officially inscribed as the UNESCO's WHS during its 36<sup>th</sup> committee meeting in St. Petersburg, Russian Federation. The designation symbolises the recognition of Lenggong Valley as one of the world's cultural heritage sites and expected to further elevate tourism in the area significantly.



*Figure 2.1.* Map showing the location of Lenggong (Ministry of Information, Communication, and Culture, 2011)

Lenggong Valley becomes an important archaeological site in the world primarily because of the discoveries of archaeological evidence that support a cultural sequence dating from 1.83 million years old until the recent 1,000 years old in one locality (Abdul Aziz et al., 2014). Such important archaeological evidence can be divided into several periods, namely Paleolithic, Neolithic, and Metal Age.

### **Paleolithic Period**

The Paleolithic period is mainly characterised by stone technology, lake shore adaptation, hunting, and gathering economy, and lexed burial as evidenced in many open air sites and cave burial sites. Most significantly were the discoveries of 15 stone hand axes embedded in the suevite rocks analysed to be 1.8 million years old in Bukit Bunuh (Mokhtar, 1997, 1998, Zuraina & Tjia, 1988). This discovery makes Bukit Bunuh as the site with the oldest evidence of human existence outside African Continent. In fact, it contributes significantly to the theory of great human migration out of Africa (Bradshaw Foundation, 2010). In addition, several other open sites in Bukit Bunuh were also found to contain stone tools made from materials likes quartz, quartzite, suevite, chert, and flints carbon-dated to be about 40,000 years ago (Mokhtar, 2006).

Other important archaeological artifacts were also discovered in Bukit Jawa and Kota Tampan. The *in-situ* stone tool workshops in Bukit Jawa was determined to be proximately between 100,000 – 200,000 years old. Meanwhile, stone tool workshops in Kota Tampan were indicated to be at least 70,000 years old, predating the great Toba volcanic eruption (Hamid, 2007).



The excavation of 'Perak Man' which has been radio-carbon dated to be about 11,000 years old is another crucial evidence to support pre-historic human presence in Lenggong (Zuraina, 1994). This is one of the most complete prehistoric human skeletons from Palaeolithic period that have ever been found in South East Asia region. Palaeolithic is the period of time ranging from 2 million to 10,000 years ago. This human skeleton was discovered in 1991 at Gua Gunung Runtuh by a team of archaeologists from Universiti Sains Malaysia. This discovery has contributed to a crucial part of South East Asia and Australomelanesoid early history (Zuraina, 1997).

### **Neolithic Period**

Neolithic period or also known as the new stoneage is characterised with the appearance of new forms of technology and tools especially pottery-making. Such archaeological evidence were mainly found in cave sites at Gua Tukang Batu and Gua Harimau. For example, the excavation activities at Gua Harimau found seven human burials together with burial items such as cord marked bowls, footed vessel, bark-cloth beater, shells, and stone ornaments dated to be between 1,700 and 4,900 years old (Zuraina & Tjia, 1988).

### **Metal Period**

The evidence of metal period was also derived from excavations carried out at Gua Harimau. This evidence was based on the discovery of two bronze celts and their moulds from human burial and have been radio-carbon dated to be between 4,000 to 3,000 years ago. In overall, the Lenggong Valley is a unique outdoor museum and is considered to contain one of the first seats of human civilization in Southeast Asia.

To summarize, the chronological prehistoric events of Lenggong Valley is presented in figure 2.2.

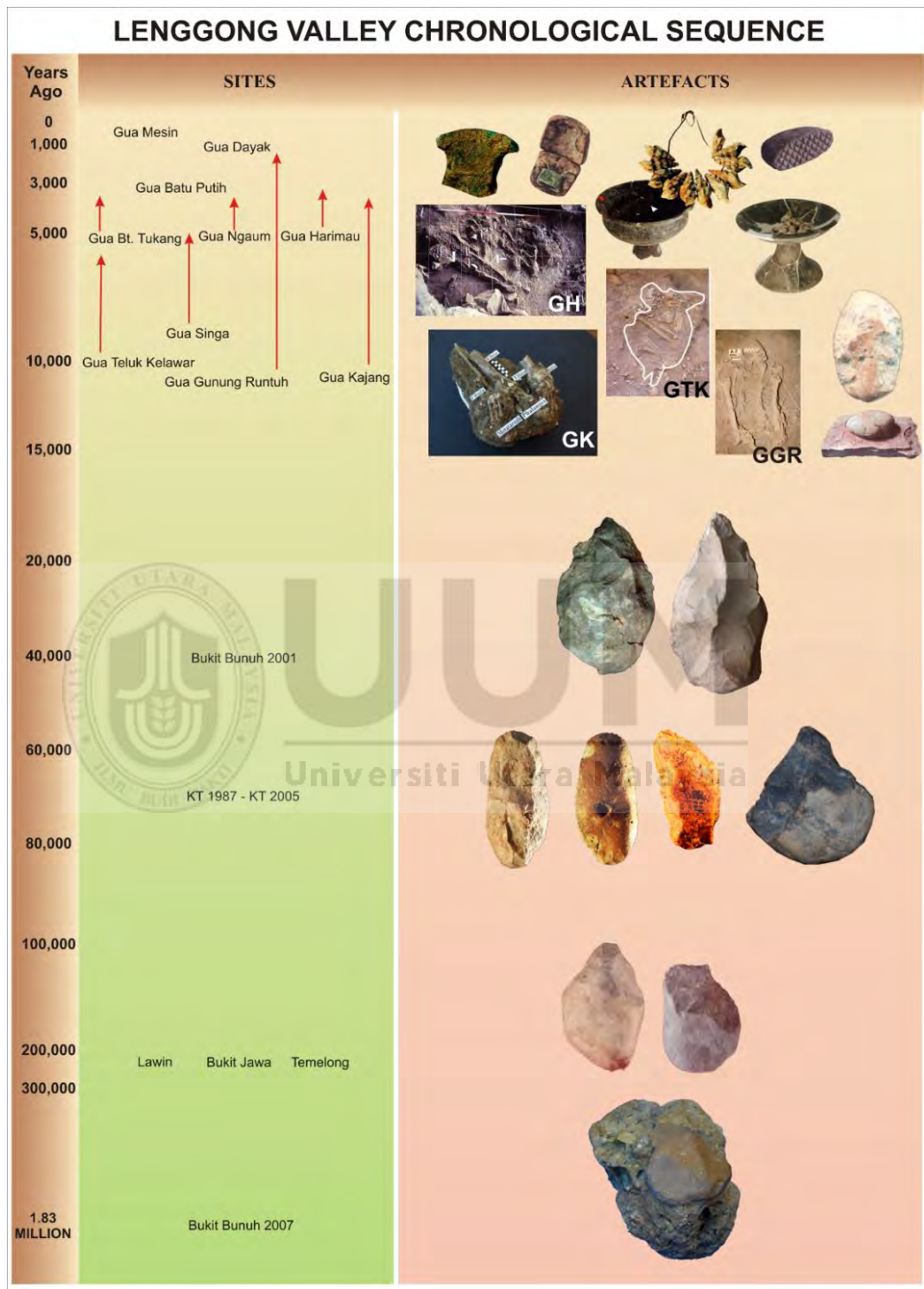
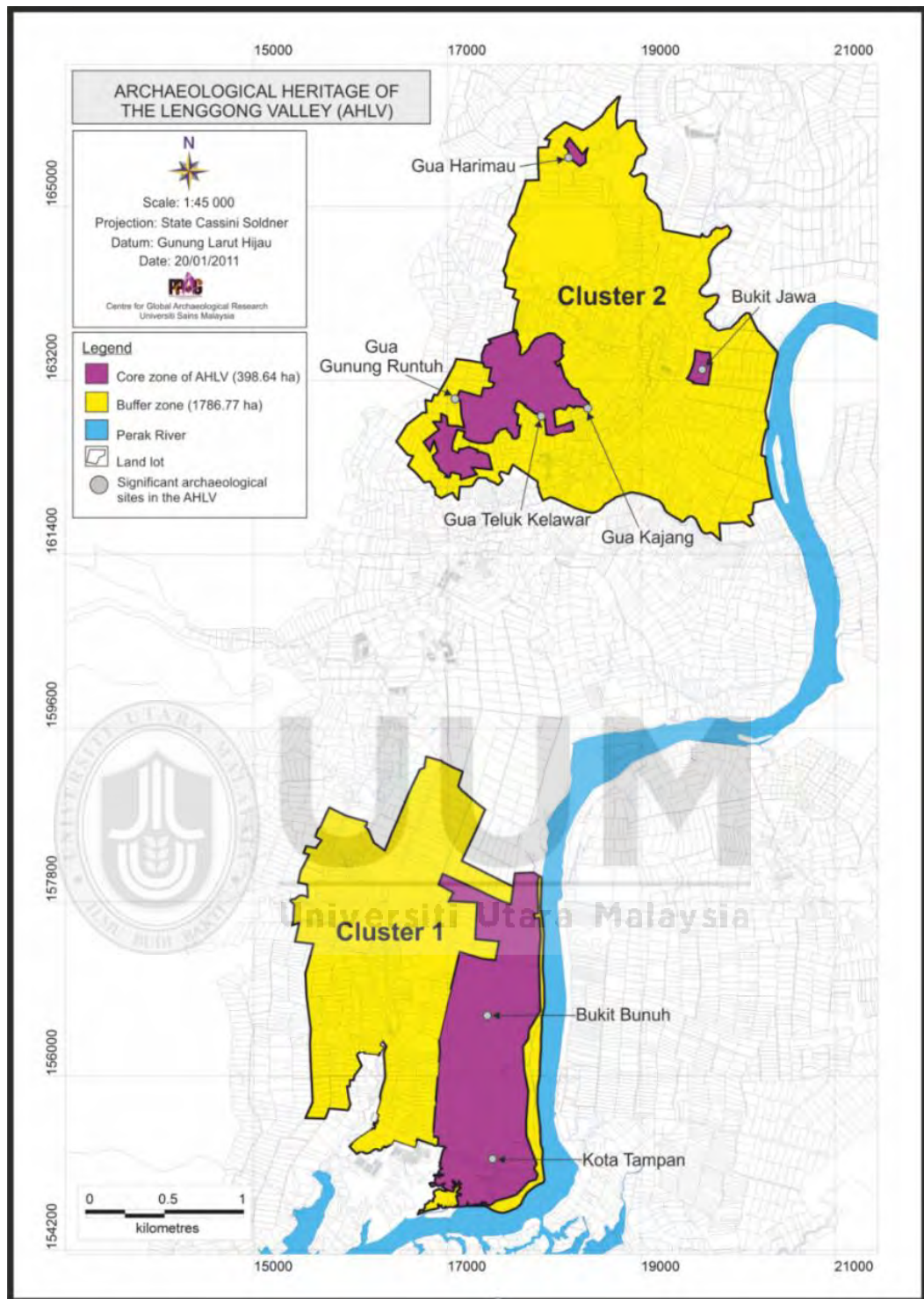


Figure 2.2. Chronology of prehistoric archaeologies in Malaysia. Lenggong Valley sites are marked in red colour (Ministry of Information, Communication, and Culture, 2011)

The above figure exhibits Lenggong as one of the few archaeological sites in the world which history spans continuously over a million years (starting from 1.83 millions years ago to the recent 2,000 years of human civilisation). The evidence of human civilisation in Lenggong ranges from very primitive stone tools to the recent metal technology as found in multiple open and cave sites around the district.

The heritage sites in Lenggong Valley can be divided into two main clusters, namely Cluster 1 and Cluster 2. Each of these clusters represents a group of archaeological open sites and caves sites as depicted in the map below:





*Figure 2.3. Map of Lenggong Valley showing the four core zones and buffer zones in Cluster 1 and Cluster 2 (Ministry of Information, Communication, and Culture, 2011)*

The above map showcases the locations of two main archaeological clusters or zones.

The purple zones were designated as core zones where the actual archaeological sites

and artifacts are located. Meanwhile, the yellow zones were designated as buffer zones which were established as the protection areas to prevent development from encroaching into the core zones. In overall, the designation of Lenggong Valley as world heritage was attributable for its outstanding universal values presented by Malaysian government as follows:

Table 2.1

*The Outstanding Universal Values*

The Outstanding Universal Values	
1.	Lenggong Valley provides a culture sequence from the Palaeolithic through the Neolithic to the Metal period, chronometrically dated from 1.83 million to 1,000 years ago. This is one of the longest stretches of culture sequences in a single locality in the world.
2.	This archaeological valley has one of the largest number of <i>in situ</i> Palaeolithic sites in Southeast Asia. <i>In situ</i> Palaeolithic sites are extremely rare in the world because over time, natural processes and human activities would disturb the original context and erase the cultural record.
3.	Prior to the excavation of Kota Tampan in 1987, little was known about how prehistoric man made stone tools in Southeast Asia. Because Kota Tampan was an undisturbed Palaeolithic tool workshop, the association of artefacts were clearly visible and this has revealed tool function and classification, as well as an understanding of the cognitive behaviour of the tool makers. The choice of raw material and an understanding of lithology and an efficient method of production revealed a rational and systematic approach to tool making. This has made Kota Tampan an important reference site for Palaeolithic stone tool making in the world.
4.	Perak Man, buried in Gua Gunung Runtuh in the Lenggong Valley is the only prehistoric skeleton in the world born with a deformity known as <i>Brachymesopthalangia</i> type A2. He is also the oldest most complete skeleton in Southeast Asia, chronometrically dated to 10,120 ± 110 BP. Extensive studies on Perak Man and the associated mortuary goods provide a very rare insight into Palaeolithic burial ritual, disease, belief system and lifeways.
5.	Kota Tampan is a rare example in the world, of a prehistoric site where the cause and point of site abandonment can be determined. Presence of ash from the last catastrophic Toba volcanic eruption in the <i>in situ</i> Kota Tampan site suggests that man had to suddenly flee the site because of this major natural catastrophe around 70,000 to 74,000 years ago, leaving behind his tool making “equipment” and his completed as well as unfinished tools in the workshop.

*Source:* Ministry of Information, Communication, and Culture (2011, pp. 113-114)

Even prior to the designation as the WHS, plans for heritage tourism development and conservation have been devised under the coordination of the National Heritage Department. From the perspective of tourism, state government has already prepared

and gazetted local and structural plans to develop Lenggong Valley as a premier heritage destination (Rancangan Tempatan Hulu Perak, 2002). The plans included the infrastructure development of tourism facilities in Lenggong Valley which covers among others a better tourist signage to various heritage sites and trails, visitors centre and kiosk, heritage board walks, upgrade of museum and its exhibitions, expansion of logging facilities, and the likes. At the same time, management plan for heritage conservation has also been formulated to protect the valuable heritage resources from various threats. In fact, this management plan has been submitted during the nomination of Lenggong Valley as a WHS to the UNESCO's technical committee for assessment and approval. The management plan was developed under the guidance of the National Heritage Department with the cooperation of various government agencies including Universiti Sains Malaysia, Universiti Utara Malaysia, Lenggong District Council, Lenggong Land and District Office. Today, with the official designation, the plans have become even more important in achieving its true potential as international heritage destination. In fact, a greater effort to implement the plan is inevitable and requires the support of all stakeholders including central government, state and locals, private sectors, and most importantly local communities. The failure or success of Lenggong Valley as a premier heritage destination in the country depends on the cooperation of all quarters, a sound strategy, a good management practices, and publicity.

### **2.3 Sustainable Tourism Development**

The United Nations WCED published a report entitles 'Our Common Future', or also known as the Brundtland Report in 1987. The main objective of this report was to create awareness and to gain support from member nations in the quest to create a better world via sustainable development. The idea of this report comes from United Nations

Conference on the Human Environment in Stockholm following debates and proposals from delegations representing various nations on heightening environmental issues.

Among the agenda of the Brundtland's Report were:

- To propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond;
- To recommend ways concern for the environment may be translated into greater co-operation among developing countries and between countries at different stages of economical, and social development, and lead to the achievement of common and mutually supportive objectives that take account of the interrelationships between people, resources, environment, and development;
- To consider ways and means by which the international community can deal more effectively with environment concerns;
- To help define shared perceptions of long-term environmental issues and the appropriate efforts needed to deal successfully with the problems of protecting and enhancing the environment, a long term agenda for action during the coming decades, and aspirational goals for the world community (WCED, 1987, p. 5)

The Brundtland Commission Report also officially recognised human resource development through poverty reduction, gender equality and fairer wealth distribution as its key strategies to achieve both environmental conservation and sound economic development. This report also proposed several remedies to kick start sustainable development initiatives among member countries. Economic activities that create significant environmental crisis for example were reassessed to find alternative solutions from operational, technological, and political perspectives. As the result of the above development, Agenda 21 was declared during Earth Summit in Rio de Janeiro in 1992 using the Brundtland Report as the framework. Following the implementation of Rio Declaration, a Commission on Sustainable Development was established under United Nations to oversee the implementation of Agenda 21. The key principle of sustainable development was “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 41).

As mentioned earlier, WCED (1987) recognised there was a global issue pertaining to environment. In consequence, they stressed the needs for all industries to practice sustainable development principles. Therefore, tourism as one of the largest industries should also play an active role in promoting sustainable development (Murphy, 1985). WTO with advises from experts agreed about the needs to develop tourism based on sustainable principles. This is because according to Gunn (1994) “there is no other form of development that has so many far-reaching tentacles as does tourism” (p.16). Tourism has high probability to cause significant positive and negative impacts towards multiple-facets of the community including economic, cultural and environmental. In order to maximize the benefits and minimize the costs, tourism should be planned according to the ideal sustainable development approach which takes into account local community’s concerns and expectations. The following is the definition of sustainable tourism development according to United Nation World Tourism Organization (UNWTO):

Sustainable tourism development meets the needs of the present tourists and host regions while protecting and enhancing opportunity for the future. It is envisaged as leading to management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems. (World Tourism Organization, 1998, p. 19)

Similarly, Murphy (1998) highly recommended that sustainable development to be implemented in tourism because “it is a resource industry, one which is dependent on nature’s endowment and society’s heritage. It sells resources as part of its experiential product, but it also has to share the same resources with other users, including the local residents” (p. 178). Briassoulis (2002) added that there are a number of reasons that justified the needs to implement sustainable development in tourism, especially with regards to scarcity of resources (e.g. land and water) which inevitably lead to use



conflicts. For example in Bali, local residents are competing with tourist resorts for water supply to water their crops (Cole, 2012). The growth of tourism and increasing number of resorts has worsened this water supply issues into another level.

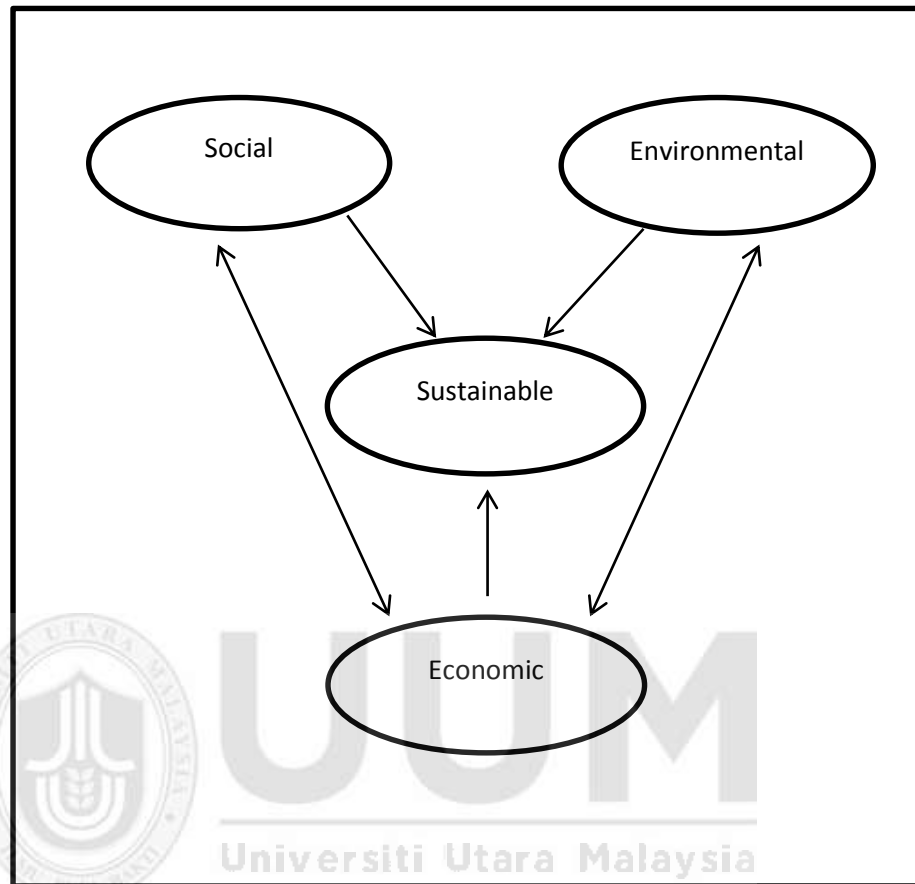
Most importantly, sustainable development has become the major requirement by UNESCO in developing tourism within WHS (Pedersen, 2002). This is to ensure that not only the heritage properties are protected, but also to enhance the quality of life of local residents via the benefits of tourism especially in developing countries. Furthermore, tourism is recognised as a catalyst for growth in rural development, thus it is essential for the authority to involve local community in decision-making process. Besides that, the priority of employment and business opportunities should also be given to local communities.

Article 4 and Article 5 in the World Heritage Convention mentioned about the needs for sustainable tourism development in protecting the outstanding universal value of heritage properties (UNESCO, 2005). Each state parties must ensure “the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage” (UNESCO, 2005, p. 10). Sustainable tourism development has also been embedded into the World Heritage Convention’s operational guidelines with the mission for sustainable use of heritage resources. A special initiative called ‘Budapest Declaration’ was adopted by the World Heritage Convention that stresses the needs to “ensure an appropriate and equitable balance between conservation, sustainability and development, so that World Heritage properties can be protected through appropriate activities contributing to the social and economic development and the quality of life of our communities” (UNESCO, 2015, p. 3).

Recently, at the 20<sup>th</sup> session of UNESCO's General Assembly in 2015, a policy document on the integration of sustainable tourism development perspectives into World Heritage Convention was also launched (UNESCO, 2015). The policy was formulated to strengthen the applicability of sustainable tourism development within WHS. The policy elaborates in details the dimensions of sustainable tourism development that range from environmental sustainability, inclusive social and economic development. Within environmental dimension, state parties should avoid the degradation or depletion of both cultural and natural resources. This covers all aspects of biological and cultural diversity as well as the entire local ecosystem. In terms of social sustainability, efforts must be made to ensure that social development as the main agenda in WHS planning and development. All stakeholders should be given fair and equal chance to participate in the decision-making process so that their concerns are respected. From economic sustainability dimension, local communities in particular should be offered training, capitals, and other resources enable them to participate in the economic activities that enhance their quality of life.

Similarly, Inskeep (1991) identified that "sustainable tourism development is aimed at protecting and enhancing the environment, meeting basic human needs, promoting current and intergenerational equity and improving the quality of life of all people" (p. 495). The term 'protecting the environment' refers to both cultural and natural environment. As in the case of Lenggong Valley, the main protection agenda is to protect the integrity of cultural significance of a WHS. In addition, Swarbrooke (1999) suggested that sustainable development consists of three dimensions; the environmental dimensions (both natural and built), the economic dimensions (both community and

business), and the social dimensions (both host and visitors). This is depicted in the next figure.



*Figure 2.4.* Dimensions of sustainable tourism (adapted from Swarbrooke, 1999)

It is important that all the above dimensions to be treated with equal value, and need to be studied and understood. For sustainable tourism to be successful, the interrelationship between all three aspects must be acknowledged (Swarbrooke, 1999). This is also stressed by AbbasiDorcheh and Mohamed (2013) where it is crucial to collaborate with stakeholders in the planning and development of heritage resources in order to achieve sustainable tourism development by monitoring the social, economic and environmental impacts. The planning and development of WHS in particular need to balance between conservation and the use of heritage resources.

## 2.4 World Heritage Site

According to Timothy and Boyd (2003, p. 2), “heritage is linked to the past which represents some form of inheritance passed down from past generations to current generations, and subsequently to future generations of both cultural tradition and physical artefacts”. It is truly the act of ‘inheritance’ that becomes the backbone of this concept as the name suggests. It requires some sort of ‘intergenerational exchange’ or ‘relationship’ (Graham, Ashworth, & Tunbridge, 2000). Heritage therefore has the tendency to shape a society’s identity, power and economy characteristics inherited from previous generations.

Prentice (1993) on the other hand, describes heritage based on types of attraction. Among others are national parks, museums, art galleries, cultural villages, archaeological sites, historic cities, monuments, festivals and many more. In this sense, any cultural and natural property that attracts tourists can be considered as a heritage attraction. Similarly, Poria, Butler, & Airey (2001) shares the same approach to understanding heritage by hooking it up with tourism, one of the only few possible ways that people in general can consume heritage.

Meanwhile, according to Article 1 of World Heritage Convention, heritage can be summarised as things with outstanding universal value from the points of history, art or science that include both cultural and natural properties (UNESCO, 2005). The Convention further elaborates that cultural heritage may cover monuments, groups of buildings, and sites. Meanwhile natural heritage refers to natural features, geological and physiographical formations, and natural sites. In conclusion, this infers that the

value or significance associated with the properties is actually the criteria that qualifies it as 'heritage'.

From Malaysian perspectives, especially according to the National Heritage Act 2005, heritage is grouped into two main categories (Government of Malaysia, 2005). First, cultural heritage that includes:

Tangible or intangible form of cultural property, structure, or artefact, and may include a heritage matter, object, item, formation structure, performance, dance, song, music that is pertinent to the history or contemporary way of life of Malaysians, on or in land or underwater cultural heritage of tangible form but excluding natural heritage. The significance of cultural heritage is determined by its aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, linguistic or technological values. (p. 16)

The second group of heritage under the National Heritage Act 2005 (Government of Malaysia, 2005) is categorised as 'natural heritage' that includes

Natural features of any area in Malaysia which may consist of earthly physical or biological formations or group of such formations, geological or physiographical features, mountains, rivers, streams, rock formation, sea shore, or any natural sites of outstanding value from the point of view of nature, science, history conservation or natural beauty including flora and fauna of Malaysia. (p. 17)

The term 'heritage' is also used interchangeably with other terms such as 'cultural tourism', 'ethnic tourism', 'art tourism' and 'heritage tourism' in both commercial and academic publications. However, it is unclear whether or not they refer to the same thing. In this problem, Hall and Zeppel (1990) believed that there is some connection between these terms:

Cultural tourism is experiential tourism based on being involved in and stimulated by the performing arts, visual arts and festivals. Heritage tourism, whether in the form of visiting preferred landscapes, historic sites, buildings or monuments, is also experiential tourism in the sense of seeking an encounter with nature of feeling part of the history of a place. (p. 87)

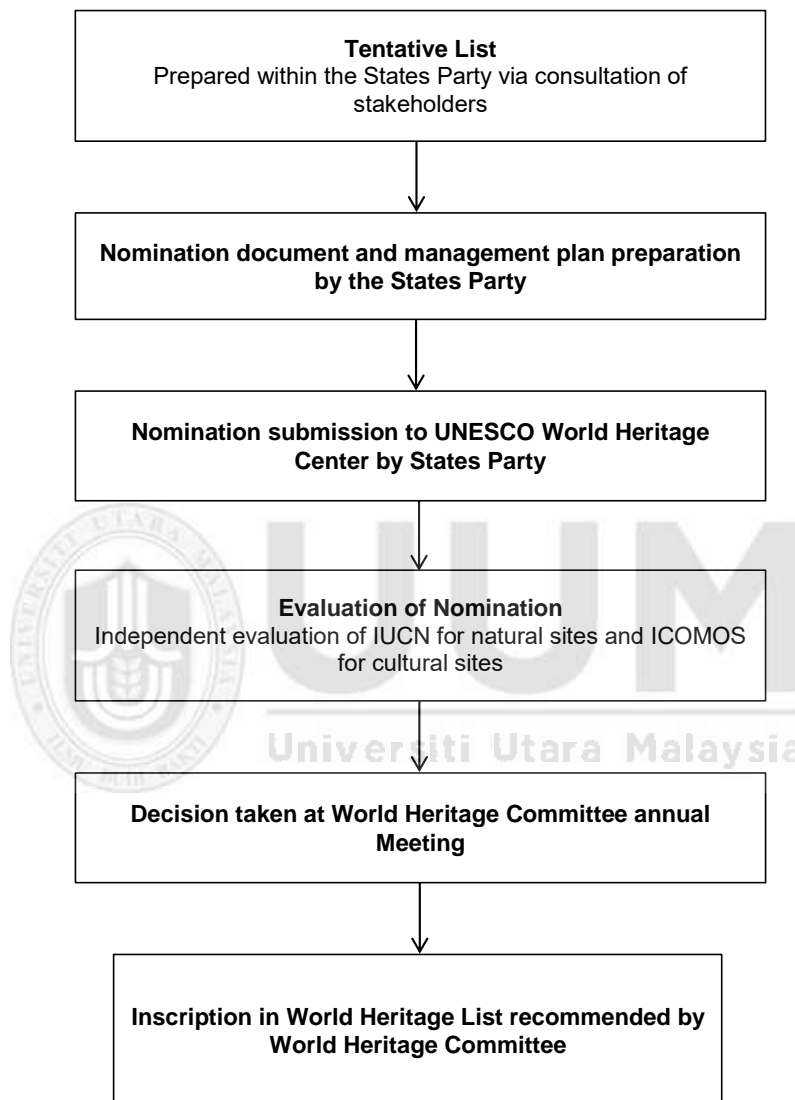
A WHS, a designation under UNESCO was built from the above understanding of heritage. In addition to that, a WHS must hold quality that not only significance for a nation where it belongs, but also important to the people of the world at large. More accurately, it must possess the so called ‘outstanding universal value’ that represents among others human ingenuity, cultural tradition, architectural uniqueness, natural beauty, aesthetic importance, biological diversity, and human civilisation in general. Currently in 2016, there are 1052 WHSs conferred by UNESCO forming part of the cultural and natural heritage worldwide (UNESCO, 2016). Malaysia is blessed to have four WHSs including Kinabalu National Park, Gunung Mulu National Park, Melaka and Georgetown Straits Settlements, and the latest, the Archaeological Heritage of the Lenggong Valley.

Historically, the protection and promotion of world heritage started on November 16, 1972 when the Convention Concerning the Protection of the World Cultural and Natural Heritage signed in Paris by 170 member countries under the United Nations (UNESCO, 2005). Under this convention, each country is responsible for the identification, protection, conservation and transmission of heritage properties to future generations within its territory. Since its conception, the World Heritage Convention now becomes the most powerful international legal instrument for the protection of both cultural and natural heritage. This convention has managed to successfully save and protect hundreds of outstanding and endangered WHS around the globe, beginning with a campaign by UNESCO to rescue the magnificent Abu Simbel Temple in Egypt from the rising water of the Nile between 1960 and 1980.

The intergovernmental World Heritage Committee represented by 21 states Parties elected for a term of six years at the General Assembly of the State Parties under the wing of UNESCO (UNESCO, 2016). This committee is responsible for the implementation of the Convention and selection of sites to be inscribed into the World Heritage List. Currently, Malaysia is a member of the Committee which has been elected during the 35<sup>th</sup> General Assembly held in Paris in 2011. In the inscription process of the WHS, the Committee obtained professional advises from two advisory bodies, namely the International Council on Monuments and Sites (ICOMOS) for cultural sites, and the World Conservation Union (IUCN) for natural sites. Beside the two bodies, the third is the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM). The ICCROM provides consultation to the Committee on matters pertaining monument restoration and the management of cultural heritage.

The process of WHS designation is very cumbersome and meticulous via a series of steps. First, the state party that wishes to nominate its heritage site into the World Heritage List must announce its intention at least one year prior to the actual inscription process before the General Assembly. At this stage, the state party has to submit the tentative list to the World Heritage Centre so that it can be made known to other members. This tentative list does not have to be exhaustive but must include crucial information the likes of its geographical location, a brief description of the property and justification of outstanding universal value. The actual nomination and inscription process can only take place after the tentative list have already been submitted. Afterward, the nomination of the property for inscription must be accompanied with the nomination dossier and proposed management plan. The nomination dossier will then

be evaluated by the ICOMOS or IUCN before finally being delivered to the World Heritage Committee for a decision. The WHS inscription process is summarized using the following Figure 2.5:



*Figure 2.5. The World Heritage Site inscription process (Leask, 2006)*

Once the site is included in the World Heritage List, the state party in which the property is located must take full responsibility of the maintenance and protection of the sites. UNESCO World Heritage Convention's Article 4 (1972) stated that "Each State Party to this Convention recognizes that the duty of ensuring the identification,



protection, conservation, presentation and transmission to future generations of cultural and natural heritage situated on its territory, belong primarily to the State” (UNESCO, 2005, p. 10). In Malaysia, such responsibility was assigned to the National Heritage Department, Ministry of Tourism and Culture. The World Heritage Centre with the cooperation of ICOMOS or IUCN will conduct scheduled inspection and monitoring of the site for assessment purposes.

## **2.5 Conceptualizing Support for Sustainable Tourism Development**

The term ‘support’ although has been used extensively in the literature yet little was explained about its conceptual definition. According to social exchange theory, support represents the consequence of exchange (Ap, 1992). In social exchange process, a person will evaluate the consequence of exchange before he or she make a decision whether or not to enter into exchange. If the impact is judged more positively than its costs, they will then enter into the exchange (e.g. engage in tourism activities, support etc.). The consequences of the exchange will be in the forms of output, actions, or outcomes. In other words, people who believe tourism is beneficial for them will act in the best interest of tourism. Their actions or behaviours can be in the forms of collaboration, cooperation, involvement, commitment to the development policy and even support for tourism development. In overall, social exchange theory infers that residents’ support for tourism development could indicate their willingness to enter into exchange as a result of evaluated consequences (Ap, 1992; Jurowski, et al., 1997; Kayat et al., 2013; Long & Kayat, 2011).

On the other hand, Deery et al. (2012) in their seminal work defined ‘support’ as the behavioural outcomes as a result of perceived impacts. According to their study, the

outcomes of an evaluated social impact (e.g. support or no support) can be determined by a number of variables such as host-guest relationships, resident characteristics, residents' perceptions of tourism impacts, and also destination characteristics. The perceptions towards tourism impacts including economic benefits and costs, recreational opportunities, delinquent behaviours, pride, and development of infrastructure acting as the major factors for support or opposition for tourism development.

In addition to the above, the theory of reasoned action suggests that “intention to perform a given volitional behaviour is the immediate determinant of behaviour” (Mackay & Campbell, 2004, p. 445). Thus in this case, the behavioural intention (e.g. intention to support) also represents the volitional behaviour (e.g. actual support). This assumption is based upon Ajzen and Fishbein (1980), founded on the theory of reasoned action that explained there is a strong relationship between belief, attitudes, behavioural intentions, and behaviour under certain conditions. Scholars also believe that a person's behaviour could be shaped by how he or she perceives the world around him (Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1975; Kim & Weiler, 2013).

Using the above theoretical definitions as a guideline, this study operationalizes support as residents' endorsement and inclination towards sustainable tourism development's policies, programs, plans, projects, and any social change processes invoked by those interventions. Sustainable tourism is a development policy that enhances local development as well as protecting natural, traditional cultural heritage in the tourism destination (Castellani & Sala, 2010). In addition, Chen and Chen (2010) also stated

that “sustainable tourism and development has been viewed as essential for finding a balance economic prosperity, environmental protection, and social equity” (p.526).

Without endorsement and inclination by the public, sustainable tourism development planned by the government will face great difficulties. In addition, Long and Kayat (2011, p.143) also stressed that “to maintain sustainable tourism development, it is necessary to take into account a long-term perspective of residents’ perceptions of tourism”.

## **2.6 Factors Influencing Support for Sustainable Tourism Development**

There have been many factors identified in response to residents’ support for sustainable tourism development. Scholars has also proposed a number of theoretical models using social exchange theory as the foundation (Gursoy et al., 2002; Jurowski et al., 1997; Nunko et al. 2010; Rasoolimanesh et al., 2015). These models integrated several factors as the determinant of residents’ support for sustainable tourism development including community attachment, community involvement, economic gains, environmental attitudes, and perceived impacts of tourism. However, the above models have so far omitted trust in government as the key factor that influence residents’ support. Cook (2000) and Kayat (2002) stress that there has to be trust among the exchange actors in order for the exchange process to occur. Besides trust, existing literature also concentrate on residents’ perception towards tourism in general rather than perceptions towards WHS designation, which is more applicable in the context of this current study.

Following the above, this study in particular decided to employ community attachment, community involvement, perceived local economic condition, trust in government, and perceptions towards WHS designation as the key variable in understanding residents' support for sustainable tourism development. There are several reasons for the inclusion of these factors. Community attachment for example was chosen because researches show that residents who were strongly attached to the community were also culturally attached to the local heritage and were very supportive of the conservation efforts (Adeniran & Akinlabi, 2011). Similarly, Nyaupane and Timothy (2010) suggested that residents' involvement could both lead to support for sustainable tourism development, and encourage conservation behaviour. So both of the above factors can be said to closely relate with tourism development in WHS area, thus applicable for this research.

The inclusion of perceived local economic condition on the other hand may also provide additional empirical evidence how residents who live in the under-developed regions of the developing countries would support sustainable tourism development. Most studies that tested this construct have been in the developed western countries (Gursoy et al., 2009; Gursoy et al. 2002). Thus, testing this variable in Lenggong Valley is very much represent the under-developed regions of the developing countries. In subsequent, trust in government was also included in this study because this construct is a key component of sustainable and good governance in tourism development (Nunkoo, 2015; Nunko & Smith, 2013). And finally, perceptions towards WHS designation has been found as one of the major factors to influence sustainable tourism development in the context of WHS (Jimura, 2010; Nicholas et al., 2009). In particular, it is importance to know how the designation of WHS affect the local residents. This knowledge is important because one of the UNESCO's primary objective of developing

WHS is to promote community socio-economic benefits (UNESCO, 2014). Should the designation of WHS affects the local residents in a negative way, then something must be wrong and need to be corrected.

In summary, most of the studies mentioned above concentrate exclusively on developed countries. Many scholars agreed that more researches should be conducted in the context of developing countries in order to gain a more holistic view. A study by Adeniran and Akinlabi (2011) in Nigeria was among the few that investigated the role of community attachment towards attitudes for heritage conservation and support for sustainable tourism development in the context of developing countries. Their findings suggest that residents with strong community attachment were more positive towards heritage conservation and sustainable tourism development efforts.

Meanwhile, a study by Fun et al. (2014) attempted to identify the relationship between local communities' involvement and support for sustainable rural tourism in Sarawak. The level of involvement was measured by taking into consideration several aspects including participation in decision-making, knowledge sharing, empowerment, and level of knowledge in tourism industry. Their study suggests that local communities' involvement play a significant roles in determining support for sustainable tourism development. Besides that, Sutawa (2012) also investigated the role of community involvement using the proxy of empowerment towards support for sustainable tourism development in Bali. Their findings indicate that empowerment and involvement of the community are the key ingredients for sustainable tourism development. In addition, residents who participate in tourism have the tendency to keep their culture and nature.

Sutawa further argued that “community empowerment there is needed to avoid social conflict and the loss of cultural values related to income from tourism” (p. 419).

Other related studies in the developing countries deal exclusively on the effects of residents’ perceptions and support for sustainable tourism development (AbbasiDorcheh & Mohamed, 2013; Kruja & Hasaj, 2010; Lo, et al., 2014; Walpole & Goodwin, 2002). AbbasiDorcheh and Mohamed (2013) recognized that stakeholder perceptions as a fundamental element in achieving sustainable tourism development. In addition, their study utilised both Butler’s tourism area life cycle (1980) and social exchange theory (Ap, 1990) as underpinning theory in explaining the above relationship. In the same vein, Kruja and Hasaj (2010) made a comparison study on stakeholders’ perception towards sustainable tourism development in Albania. The stakeholders involved in this study were tourists, local communities, business owners, and government officials. The local communities in particular accepted the need to have sustainable tourism development approach in their area as to preserve both the natural and historical resources, and the same time provide the much needed job opportunities for the local people.

Lo et al. (2014) on the other hand investigated residents’ perceptions and environment tourism development in rural Sarawak. Their study observed that “the perceptions and attitudes of residents toward the impacts of tourism are important to the planning and policy consideration for successful development, marketing, and operation of existing and future tourism program” (p. 86). In line with that, their study concludes that residents’ perceptions towards environmental management practices, conservation of cultural heritage, and influences of resources play a major role in explaining residents’

support towards sustainable tourism development. Lastly, Walpole and Goodwin (2002) have also successfully examined the local attitudes towards conservation and tourism in Komodo National Park in Indonesia. Their findings indicate that residents who view tourism positively will lead to high support for sustainable tourism development in their locality.

In conclusion, the above studies provide adequate literature on the factors that may influence residents' support for sustainable tourism development that can be used as the guidelines for this thesis. These factors were then broken into two parts, independent variables and mediating variables. The independent variables consist of community attachment, community involvement, perceived local economic condition, and trust in government institutions. Meanwhile, the mediating variable under examination in this study is perception towards WHS. Perception towards WHS was treated as mediating variable following the suggestions from the literature (Lee, 2013; Nicholas et al. 2009). The following section discusses each of the understudy variables in details.

### **2.6.1 Community Attachment**

The existing definitions of community attachment are not explicit and there were confusions even among sociologists in terms of its similarities and differences with the concept of 'place attachment' (Banks, 2010). However, the following definitions may be able to provide a clear idea of what constitutes community attachment. According to Gursoy et al. (2002), community attachment is defined as "the level of social bonds such as friendships, sentiment, and social participation" (p.86). Others also suggest that social bonds and social interaction as the building block for community attachment (Cowell & Green, 1994; Crowe, 2010). Meanwhile Nicholas et al. (2009) described

community attachment as “a complex, integrating, multi-faceted concept that incorporates the relationship between people and their community” (p.395).

In the same vein, Trentelman (2009) referred this concept as the connections between residents and their communities. It measures a person’s sentiment regarding the community he or she lives in and how one rooted in that community. The connection or sentiment is in turn consists of social, cognitive and emotional components (Raymond, Brown, & Weber, 2010). In laymen’s term, this ‘connection’ is also understood as a ‘sense of belonging’ with other people within the community. Meanwhile, Lee (2013) stated that community attachment is “multi-faceted psychological process that reflects the affective, cognitive, and conative (i.e. behavioural) domains of a person’s attitudes” (p. 38). In other words, it explains how a person develops feeling or attitude towards their community. This attachment or attitudes can be assessed based on among others their participation and integration into communities’ lives (McCool & Martin, 1994).

In the contrary, place attachment focuses primarily how a person connects to his or her physical environment based on two main construct of place identity and place dependence (Bricker & Kerstetter, 2000; Kyle, Absher, & Graefe, 2003; Morgan, 2010). Unlike place attachment, community attachment deals exclusively on individual connection with the social elements of a community. Thus, it excludes the other natural or physical elements of a community landscape, which is part of place attachment.

In order to understand this concept further, an overview of its fundamental model is needed. There are two existing models available to explain community attachment. The first model is known as the ‘linear development model’ mainly due to its linear



relationship between the population size and density on patterns of social behaviour. This model was built upon the philosophical paper on the transformation of society from *Germeinschaft* to *Gesellschaft* by Ferdinand Toennies (1887) as found in Kasarda and Janowitz (1974). The terms '*Germeinschaft*' and '*Gesellschaft*' was roughly translated as 'community' and 'society'. *Germeinschaft* is pre-industrial community with close personal relationships, strong family bonding, and simple division of labour. *Gessellchaft* on the other hand refers to the current modern society living in urban areas which are often populated with people from different geographical origins and cultural backgrounds. This modern society has complicated division of labour, focus more on secondary relationship established at work or other forms of institutions, and weaker family kindship. The model proposed that social character including social bonding or community attachment can be disrupted by changes in socio-economic situations such as urbanization, mass migration, and industrialization. Unfortunately, the above model was lacking in terms of supporting empirical evidence and thus considered as weak.

The second model called 'Systemic Model' was proposed due to the theoretical flaw found in the above linear model. In particular, Kasarda and Janowitz (1974, p. 328) argued that "local community is not a residue, but a social construction which had its own life-cycle and reflected by ecological, institutional and normative variables". This view challenges the Toennies's *Germeinschaft-Gesellschaft* approach which failed to explain the extent and forms of community organization existed in modern society. In the Systemic Model, community consists of ecological, institutional, and normative dimensions. Ecologically, "the local community is viewed as a complex system of friendship and kinship networks, and formal and informal association ties rooted in family life and on-going socialization process" (Kasarda & Janowitz, 1974, p. 329). For

example, community with high diversity of racial background tends to have weaker attachment, especially in the community of a different race. The social behaviour of a community is also greatly shaped by large scale institutions of mass society like schools, churches, and even political parties. For example, the republicans tend to oppose gay marriage, abortion, and gun ownerships compared to those of democrats. The normative dimension on the other hand refers to the acceptable behaviour within the community. For an instance, dual-career families can be considered as a norm in big cities. These factors influence social behaviour in a community as opposed to a mere population size and density as proposed by linear development model of *Germeinschaft* to *Gesellschaft*. The systemic model approach to community attachment is also largely accepted by many researchers in the area of tourism (Lee, 2013; McCool & Martin, 1994; Theodori, 2004; Vargas-Sánchez, Porras-Beuno, & Plaza-Mejía, 2011).

The popularity of this topic at that time was mainly driven by the concern about the effects of urbanization and industrialization on the social fabric of communities as highlighted by Reissman (1964) and Short (1971). Furthermore, early studies also indicated that population size and density have an effect on patterns of social involvement and community attachment (Fischer, 1972, Hauser, 1965). Others who contributed to the early development of this concept were Doolittle and MacDonald (1978) who produced the 40-item 'Sense of Community Scale' to investigate communicative behaviours and attitudes at the community or neighbourhood level of social organization.

In tourism literature, community attachment has received substantial attention, especially in terms of its relation with attitudes and/or support for tourism (Andereck et

al., 2005; Bank, 2010; Gursoy et al., 2002; Gursoy & Rutherford, 2004; Lee, 2013; Lo et al., 2014; McDonald, Riden, & Uysal, 1995; Nicholas et al., 2009; Sheldon & Var, 1984; Theodori, 2004; Um & Crampton, 1987; Vargas-Sánchez et al., 2011). One of the primary reasons of studying community attachment is because of its ability to explain how a person is sentimentally rooted with a particular community and heritage (Brown, 2003). Such emotional connection provides an explanation of why strongly attached residents have favourable attitudes towards the preservation of community and heritage characteristics than the rest (Adeniran & Akinlabi, 2011; Brehm et al., 2004). Besides the above, strongly attached residents were also found to establish friendly relationship with tourists, and this is one of the core criteria attracting tourists to certain destinations (Fallon & Schofield, 2006; Um and Crampton, 1987). On the other hand, destinations with hostile local population will be less attractive to tourists.

Among the earliest studies examining the effects of community attachment on residents' attitudes for tourism was by Um and Crampton (1987). The result indicated that the more attached residents are to the community, the less positively they perceived tourism impacts. This scepticism towards tourism may be associated with the overwhelming concerns among the local residents over the likelihood that tourism would change their community. On the contrary, Jurowski et al. (1997) found that very attached residents rated environmental impacts negatively, but not for economic and social impacts. They believed that tourism would bring various benefits in terms of economic and social to the community. McCool and Martin (1994) on the hand, failed to confirm any relationship between community attachment and perception of the impacts. The findings of the above studies thus far have indicated some inconsistencies.

In the recent years, several scholars have continued to examine community attachment to further understand the contradictory results of earlier studies. A study by Gursoy et al. (2002) for example has failed to confirm any significant relationship between the level of community attachment and perceived benefits of tourism, perceived costs, and support for tourism development. This is similar to the study conducted by Andereck et al. (2005), where no significant relationship found with support for tourism development. On the other hand, Gursoy and Rutherford (2004) found that attached residents are likely to view the economy and social impacts of tourism positively. However, there were no significant relationships supported between community attachment and social costs, cultural benefits, and cultural costs. This finding seems to be in accordance to those of Jurowski et al. (1997), where attached residents were more concerned with the economic and social benefits of tourism rather than other aspects such as social costs or cultural costs.

Later, Nicholas et al. (2009) examined the effect of community attachment on support for sustainable tourism development. Their study concluded that there is a positive relationship between community attachment and support for tourism development which is in agreement with the study by Chen and Chen (2010). Similarly, a study by Lee (2013) also indicated that community attachment has a positive relationship with perceived benefits of tourism and indirectly (through a mediator) with support for tourism development. Therefore, the level of community attachment can be used to evaluate support for sustainable tourism development. In other words, attached residents will be more likely to support sustainable tourism development than the less attached residents.

On the contrary, Bank (2010) found that community attachment correlated negatively with attitudes towards tourism development. In her study, residents with high degree of community attachment tend to view tourism as a cause for various problems in the community such as urbanization, crowdedness, low pay, and minority benefits issues. This is in line with a study done by Knollenberg (2011), where residents with strongest community attachment were very concerned about the negative impacts of tourism, especially the social and environmental costs.

Williams et al. (1995) continued the work done by McCool and Martin (1994) in examining host community attitudes towards tourism. However, in their study, the dimension of attachment was not only confined within one's attachment to a community, but also take into consideration one's attachment to the surrounding landscape (another concept which also known as place attachment). In this instance, besides the items measuring community attachment borrowed from McCool and Martin above, several others items related to place attachment were also included based on Shamai (1991). Thus, such measurement can be considered as misleading as it tends to mix up attachment to the community and to the place.

In heritage management, community attachment has also been found to relate to perceptions towards heritage and support for sustainable tourism development. This is evident in the past studies (Adeniran & Akinlabi, 2011; Lee, 2013; Nicholas et al., 2009), which were the only few available in this context. The former found that residents who were born in the town where the heritage building is located are more culturally attached to the historical building than residents from other towns of origin. Recently, a study by Rasoolimanesh et al., (2015) in Lenggong found that strongly

attached residents to the community have positive perceptions towards tourism and in consequence were supportive of tourism development.

In conclusion, there have been many inconsistencies with regards to the causal relationships between community attachment, perceived benefits, perceived costs, and support for sustainable tourism development. Some studies indicate that strongly attached residents perceive tourism positively, while other found otherwise. In addition to that, the mediating role of perceptions towards WHS designation on the relationship between community attachment and support in the context of WHS has been very limited, thus should be examined further.

### **2.6.2 Community Involvement**

The collaborative approach has been adopted in addressing various societal problems in the past several decades and has kept many scholars captivated until today. The area of societal sectors that have been successfully addressed using collaborative approach ranging from economic development, education, business management, health, and entrepreneurships (Castellani & Sala, 2010; Donaldson & Preston, 1995; Freeman, 1984). In tourism, collaboration among key stakeholders forms a fundamental ingredient in achieving sustainable tourism development (Aas et al., 2005; Getz, 1994; Kruja & Hasaj, 2010; Kim, Uysal, & Sirgy, 2013; Lee, 2013; Nicholas et al., 2009; Som, Mohamed, Jusoh, Marzuki, & Bahauddin, 2007; Walpole & Goodwin, 2001; Yüksel, Bramwell, & Yüksel, 1999). Such collaborative approaches can be in the forms of negotiation, decision-making exercise, direct involvement, monitoring, and so forth which can lead to sustainable outcomes (Aas et al., 2005; Lee, 2013; Nyaupane, et al.,

2006). The collaborative approach may include the following groups of stakeholders, together with their intentions:

- *Local communities*: seeking a better quality of socio-economic conditions empowerment, community building, professional education (Aas et al., 2005; Nyaupane et al., 2006; Palmer et al., 2013; Som et al., 2007; Walpole & Goodwin, 2001).
- *Government*: developing successful tourism destinations that not only benefit the country's economy, but also the socio-economic growth of the local population (Aas et al., 2005; Jamal & Getz, 1995; Swarbrooke, 1999; Timothy, 1998; Wang et al., 2010).
- *Industry/private sector*: aiming to gain the long term economic benefits of tourism, enhance corporate image, protection of environment, and provision of highest service quality (Jamal & Getz, 1995; Swarbrooke, 1999; Timothy, 1998; Wang et al., 2010).
- *Tourists*: demanding for high quality, self-enriching experience, and satisfaction (Bramwell & Sharman, 1999; Poria et al., 2003; Poria, Reichel, & Biran, 2006; Swarbrooke, 1999).

This current study however focuses on the first stakeholder - the local community. The involvement of local community is important because tourism itself has 'far-reaching tentacles' that can greatly affect both positively and negatively the various aspects of the communities' lives (Gunn, 1994; Lee, 2013; Murphy, 1985; Nicholas et al., 2009). Reciprocally, the success of tourism will also be influenced by the local community's actions. The oppositions by local community for example will make sustainable tourism

development becoming even difficult to achieved (Ap, 1992; Gursoy & Rutherford, 2004).

According to (Timothy, 1999, p.372) community involvement may consist of two main aspects, “involvement in the decision-making process and in the benefits of tourism development”. The concept of community involvement can be traced back to the model of community involvement developed by Arnstein (1969). According to him, citizen involvement refers to:

The redistribution of power that enables the have-not citizens to be deliberately included in the future. It is means by which they can induce significant social reform, which enables them to share in the benefits of the affluent society. (p. 216)

Besides Arnstein (1969), another definition of community involvement that should be referred is the one by Til (1984) as quoted in Tosun (2000), defined community involvement as:

...a form of voluntary action in which individuals confront opportunities and responsibilities of citizenship. The opportunities for such involvement include joining in the process of self-governance, responding to authoritative decisions that impacts on one's life, and working cooperatively with others on issues of mutual concern. (p. 615)

What the above definitions imply is that community involvement is considered as a development strategy which is based on community resources, power, needs and decisions. Thus, in this sense, community is regarded as the main actor in the development process. Such involvement will also help in educating the host community about their rights and political power.

The benefits of involving local community in tourism have been well researched in the literature. They include:



- Exert the political power of local communities in shaping the future direction of tourism development (Aas et al., 2005; Nicholas et al., 2009; Nyaupane et al., 2006).
- Increase the value of the community by enhancing positive effects of tourism and reducing its negative effects via negotiation and monitoring (Lee, 2013; Jamal & Getz, 1995; Palmer et al., 2013).
- Convince the community about the need to integrate tourism into local economies (Aas et al., 2005; Lee, 2013; Wager, 1995).
- Contribute to community development through active involvement in tourism-related employments and businesses (Aas et al., 2005; Lee, 2013; Palmer et al., 2013; Tosun, 2000).
- Reduce conflicts such as land use or resources accessibility issues (Nicholas et al., 2009; Maikhuri et al., 2001).
- In the context of WHS, such involvement can foster the respect and understanding of the need to protect the outstanding universal value of heritage properties (Nicholas et al., 2009; Wager, 1995).

Despite many benefits of community involvement, this collaborative and partnership approach is not without problems. The process of involving local community is a very lengthy process, cost consuming, and complicated due to power inequalities, differences in capabilities, and diversity in value and interests (Aas et al., 2005; Bramwell & Lane, 2000; Doh, 2006; Jamal & Getz, 1995; Nunkoo & Gursoy, 2012; Reed, 1997). For example in a study by Reed (1997), he argues that not all interested parties have the required capability (resource flows) and power to involve in tourism, especially in less developed countries. This argument is supported by Healey (1998) and Yüksel et al.

(1999), in which they further commented that the collaborative approach by involving all interested parties will not automatically solve power imbalance issues. There are many other aspects that need to be considered especially in terms of local cultural and political context (Nyaupane et al., 2006; Tosun, 2000). Tosun (2000) argues that in less developed countries there are operational, structural and cultural limits to community involvement. Meanwhile Nyaupane et al. (2006) stressed that in some countries where the political system is heavily centralised that it restricts local community involvement. For example, in Laos, most planning and development decisions are top-down and strictly controlled by the central government (Aas et al., 2005). Local community involvement is very limited and confined into employment and small business activities. This could also be the case in Lenggong Valley.

The concept of community involvement has been explored and adopted more intensively in protected areas than any other aspects of tourism development. This is because neither the government nor the industry has the capability to ensure the safety of the protected area on their own (Nicholas et al., 2009; Walpole & Goodwin, 2001). Without the support and involvement of various stakeholders, the efforts to protect such areas will be facing great difficulties. Many issues such as illegal hunting, natural resources extractions, live stocks grassing, agricultural activities and human settlements can pose threats to such protected areas (Karanth, Kramer, Qian, & Christensen, 2008; Maikhuri et al., 2001; Nicholas et al., 2009). This scenario is also applied to protected areas the likes of WHS, where problems such as looting, trespassing, vandalism, and traditional economic activities have been found to damage the integrity of cultural heritage significances (UNESCO-ICOMOS, 2008).

To further understand this concept, the works carried out by Arnstein (1971), Pretty (1995), and Tosun (1999) provided a ladder or typology of community participation. In the literature, the term community involvement often used interchangeably with community participation, thus both are referring to the same concept. This ladder refers to the degree of power distribution to the local community in term of decision-making. Specifically, Tosun (1999) attempted to establish a typology of community participation in tourism planning and development. He proposed a typology which consists of three main headings, namely: (1) coercive community participation; (2) induced community participation; and (3) spontaneous community participation (refer Figure 2.6). Arnstein's and Pretty's typologies on the other hand are more general, without referring to any particular sector of economic development.

7. Self-mobilization	←	8. Citizen control	Degrees of Citizen Power	→	<u>Spontaneous Participation</u> Bottom-up; active par.; direct participation; par. in decision making; authentic participation; self planning;
6. Interactive participation	←	7. Delegated power		→	
	←	6. Partnership		→	
5. Functional participation	←	5. Placation	Degrees of Citizen Tokenism	→	<u>Induced Participation</u> Top-down; passive; formal; mostly indirect; degree of tokenism; manipulation; pseudo-participation; participation in implementation and sharing benefits; choice between proposed alternatives and feedback.
4. Participation for material incentives	←	4. Consultation		→	
3. Participation by consultation	←	3. Informing		→	
2. Passive participation	←	2. Therapy	Non-participation	→	<u>Coercive Participation</u> Top-down, passive; mostly indirect, formal; participation in implementation but not necessarily sharing benefits; choice between proposed limited alternatives or no choice; paternalism, non-participation, high degree of tokenism and manipulation.
1. Manipulative participation	←	1. Manipulation		→	
Pretty's (1995) typology of community participation	Arnstein's (1971) typology of community participation			Tosun's (1999a) typology of community participation	

Keys: Corresponding categories in each typology → ←

Figure 2.6. Typologies of community participation (Tosun, 2006)

Coercive participation in Tosun (1999) corresponds to the non-participation in Arnstein's typology, and to passive and manipulative participation in Pretty's model. It represents the lowest degree of power with regards to community participation. The main agenda within this lowest level of participation is not to enable people to involve in decision-making process, rather just to educate or cure host communities from posting potential or actual threats. Only some consultations are made with community leaders to tackle the basic needs of host community in order to establish socio-political support. This level of community participation is also known by the term 'top-down' approach, which is also passive and indirect. Although host communities are not included directly in the decision-making process, they can still reap the benefits of tourism development via involvement as workforces or entrepreneurs.

The second level of community participation is known as induced participation under Tosun (1999). It tallies to degrees of citizen tokenism in Arnstein's typology, and functional participation, participation for material incentives and participation by consultation under Pretty's typology. At this level of participation, local communities' view is allowed to hear and be heard. Although they are allowed to raise their concerns, they do not possess the power to make the final says regarding the project. The final decision is still exclusively belong to the authority. Therefore, this level of participation can be regarded as the level of tokenism. This type of participation is common in many developing countries (Goh, 1991). The host community only endorses the decision made by the authority on the proposed development plan.

The highest level of participation according to Tosun's (1999) typology is called spontaneous participation. It resembles the degrees of citizen power in Arnstein's

(1971) typology, and self-mobilization and interaction participation in Pretty's (1995) typology. This can be said as the most ideal mode of community involvement. The local communities are given the responsibility to work closely with the authority in decision-making and implementation process of the development plan. However, such approach may be suitable in the developed countries where the host communities are largely well-educated and possess adequate capacity. If this level of participation to be exercised in less developed countries, some cautions should be made as many of local communities especially in the rural areas are lacking in terms of education (e.g. literacy, communication skills) and other capabilities. In conclusion, although these typologies are useful in assessing the level of community participation, several limitations need to be addressed. For example, the above typologies do not consider significant obstacles such as paternalism, racism, gender discrimination, cultural remoteness of local people to tourism and so forth. These issues may influence the effectiveness of community involvement in a development plan.

In Malaysia, community involvement in the country planning is quite limited although this principle has long been stated in the Town Planning Enactment of the Federated Malay States of 1972 (Som et al. 2007). Since the passing of the revised Town and Country Planning Act of 1976, public participation has become mandatory in order for draft plan to be approved. However in reality, the standard practices for community involvement have largely been limited to public display of local plan at town council office to allow for objections and recommendations from residents (Goh, 1991). Other methods often used as a mean of public involvement are newspaper, exhibition, briefing, public representative meeting, and public objection meeting. In the case of Lenggong District, a public exhibition was staged in order to create awareness among

local residents and as a venue for inquiries relating to the nomination as UNESCO's WHS. Similarly, the Local Plan of Hulu Perak (the district where the sub-district of Lenggong is situated) was also put in public display prior to the implementation (Jabatan Perancangan Bandar dan Desa, 2004). However, the above practices disregard public actual involvement at the decision-making stages.

Among the issues in public involvement in Malaysia is the knowledge of the planning process. Malaysians in general have very little knowledge about the current planning processes (Som et al., 2007). This is evident when public are largely neglected in the formulation of five-year national development plans and other sectoral plans. The plans were only made available to public after it was approved by the cabinet. Such issues are also observable in tourism development. In a study carried out by Paimin, Modilih, Mogindol, Johnny, and Thamburaj (2014) in Kiulu, Sabah found that local community involvement were limited due to some prominence problems including lack of knowledge about tourism, lack of capital, poor command in English, and lack of information about the development plan. As a result, local involvements in tourism were mainly restricted to tour guiding roles and homestay programme. Only a handful of local residents were involved in the decision-making and mainly confined to attending meetings with authorities and stakeholders which tallies to 'citizen tokenism' in Arnstein's typology.

The following section discusses previous studies on the influence of community involvement and support for sustainable tourism development. Thus far, studies examining this relationship using quantitative approach were limited despite its important especially in community-based tourism development (Lee, 2013; Nicholas et

al., 2009). Past studies indicated that involving local community in decision-making can convince them to accept tourism as part of the local economy (Aas et al., 2005; Wager, 1995). Such engagement can also provide business and employment opportunities for the host community. In addition, Tosun (1998) also believed that engagement in tourism management can be used to assess support for tourism development

Nicholas et al. (2009) constructed community involvement measures based on two related concepts; management and decision-making process. Their findings however failed to confirm the relationship between community involvement and support for sustainable tourism development. Such insignificant relationship could be due to very low level of community involvement (less than 8%) among local residents in the management and decision-making with regards to tourism development. Unfortunately, Nicholas et al. (2009) has skipped the references on community' involvement in tourism activities such as employments and businesses, which was then added in this current study.

In contrast, Lee (2013) found that community involvement has a significant relationships with perceptions toward tourism and support for sustainable tourism development similar to the study by Rasoolimanesh et al. (2015). However, the mediating role of perceived costs on the relationship between community involvement and support was not established. Perceived benefit on the other hand was found to establish a partial mediating role between community involvement and support.

There have been several measurements available for community involvement with some degree of differences between the studies (Aas et al. 2005; Fun et al., 2014; Nicholas et

al. 2009; Lee, 2013; Palmer et al., 2013; Tosun, 2006). Aas et al. (2005) measured community involvement based on two major aspects. They were: (a) involving the local community in decision-making process; (b) involving the local community in tourism activities. However, the study conducted by Aas et al. is qualitative in nature involving a series of semi-structured interviews with key informants. On the contrary, Tosun (2006) developed a four-items measurements for community involvement which represent the means (or methods) of community involvement: (a) Attending seminar and conference; (b) Responding survey; (c) Holding referendum; and (d) Encouraging local people to invest in and work for tourism industry. Although the study by Tosun (2006) was quantitative, yet the findings was mainly descriptive without examining the causal relationship.

Recently, Palmer et al. (2013) developed community involvement measures according to two dimensions, namely behavioural involvement, and affective involvement. The behavioural involvement was operationalized as involvement in tourism-related activities, such as visitation to the attraction site and involvement in local tourism meeting. The affective dimension on the other hand, captured the local people's intention to promote local tourism via word-of-mouth promotion. Meanwhile Fun et al.'s (2014) study in Malaysia adapted the measurement of community involvement from Lee (2013) which refers to the magnitude of residents' involvement with tourism in their daily activities.

In summary, more empirical evidence is needed to understand the causal relationship between community involvement and support for sustainable tourism development as existing studies were inconclusive. Furthermore, most of the studies on community



involvement in tourism have been descriptive in nature. Understanding the role of community involvement in establishing support for sustainable tourism development may also strengthen the applicability of social exchange theory. Most importantly, the existing measurement to assess community involvement in tourism was still sketchy and require some improvement as what this study has attempted. This study for example, has integrated the measurement of community involvement from two different studies, i.e. Nicholas et al. (2009), and Aas et al. (2005) to make it more comprehensive to adequately assess residents' involvement in heritage tourism.

### **2.6.3 Perceived Local Economic Condition**

People who live in regions with low level of economic activities are more favourable towards tourism development than others (Sharpley, 2014; Sinclair-Maragh & Gursoy, 2015; Smith & Krannich, 1998). In fact, they tend to underestimate the costs and overestimate the economic benefits (Gursoy & Rutherford, 2004; Kim et al., 2013; Sheldon & Var, 1984). For example, residents in Turkey acknowledge their willingness “to put up with some inconvenience in exchange for tourist money” (Var, Kendall & Tarakcioglu, 1985, p.654). One reason for this phenomenon is because tourism often perceived as a tool for national or regional development, especially in developing countries (Liu & Var, 1986; Sinclair-Maragh & Gursoy, 2015).

Thus far, limited studies have been found in the published literature to empirically examine the influences of local economic conditions on support for sustainable tourism development (Gursoy et al., 2009; Gursoy et al., 2002; Gursoy & Rutherford, 2004). Early studies (Allen, Hafer, Long, & Perdue, 1993; Perdue, Long, & Allen, 1990) suggested that this factor may explain the variance in support for tourism development.

In addition, Cater (1987) also argued that people who live destinations with poor economic condition are more than happy to embrace tourism as their economic boost.

Gursoy et al. (2002) in their study supported the predicted inverse relationship between the perceived local economic condition and the perceived benefits. Similarly, the positive relationship between the local economic condition and perceived costs was also found to be significance. This also applies for the direct inverse relationship between the local economic condition and support for tourism. It can be concluded from their study that the more the residents believe that the local economy is in poor conditions, the more positively they view tourism and the less emphasis put on the costs of tourism. Subsequently, this will lead to support for tourism development.

Gursoy and Rutherford (2004) further examined the relationship of perceived local economic condition with both perceived benefits and costs of tourism, and subsequently with support for tourism. Their findings suggest that there are significant relationship between perceived local economic condition, economic benefits, social costs, and support for tourism. However, there were no relationships between perceived local economic condition with perceived social and cultural benefits observed. The lack of relationship reported in this study between perceived local economic condition with both perceived social and benefits strongly suggests that residents who believe the local economy is in poor condition are more concerned about the economic benefits than the other benefits. Further analysis also confirmed that there was an inverse relationship between perceived local economic condition and support for tourism development. This means that residents who perceive the local economy poorly will likely to support tourism as a boost for economic development.

Gursoy et al. (2009) have a similar result as those of Gursoy and Rutherford (2004) where in general the local economic condition plays an important role in determining perception of impacts and support for tourism development. However, the detail discussion of this result was not provided in order for the author to conduct a more precise analysis.

Currently, there were limited studies found that offer measurement scale for the perceived local economic condition (Gursoy et al., 2002; Gursoy & Rutherford, 2004). Both Gursoy et al. (2002), and Gursoy and Rutherford (2004) operationalized the perceived local economic condition using three items that measure the needs for new job opportunities in the local area. In other words, when the local population stated the urgency of new job opportunities in their area, it implies that the local economy is in a desperate condition. Thus, economic development (e.g. tourism) is mostly sought after to rectify this lack of job opportunities. This present study however has added a new item which represents not only the needs for job opportunities, but also the needs for new business opportunities. This is because both job and business opportunities are part of the indicators that represent the economic status of an area (Dimoska, 2008).

In conclusion, the applicability of this variable to determine support for sustainable tourism development is still at infancy stage and more empirical evidences are needed in order to achieve convincing result. The effect of the local economic condition on perceptions and support for sustainable tourism development has significant theoretical and practical implications in this area of investigation. In addition, the measurement for this construct requires improvement by taking into consideration other items including

the ‘availability of business opportunity’ rather than just focusing on ‘availability of job opportunity’ per se.

#### **2.6.4 Trust in Government Institutions**

Research interest on trust has been going on for many decades. It covers a various spectrum of studies as diverse as trust in inter-personal relation (George & Swap, 1982), trust in organization (Gulati, 1995), trust in information technology (Lippert, 2001), trust in financial system (Wang, 2008), and trust in institutions (Wong, Wan, & Hsiao, 2011; Zucker, 1986). In general, the key understanding derived from the above studies is that trust has strong influences in persuading people or organization to enter into an exchange process. Trust can be seen as the lubricant that eases the exchange relationship between actors (Arrow, 1974) and act as a glue to maintain the exchange relationship (Jarillo, 1988).

This study however, concentrates on public trust in government institutions. It is one of the major issues affecting various aspects of economic and social development in the society (Fukuyama, 1995; Lovell, 2001). Public trust plays an important role in determining the relationship between citizens and government. In a democratically elected government, public trust determines the survival of political party that controls the country. Lack of public trust may threaten the legitimacy of the elected government (Miller & Listhaug, 1990).

Trust in government can be simply described as “confidence that political institution would not misuse power” (Luhiste, 2006, p. 478). Residents often hold government responsible for any problems that occurs in their society. Thus, they expect government

to deliver its promises to the public. Zucker (1986) as cited in Laeequddin, Sahay, Sahay, and Waheed (2010, p. 55) defined that trust is “a set of expectations shared by everyone involved in economic exchange based on person, process and institution”. In this study, the exchange partner which is the resident, will assess their trust towards the other exchange partners (i.e. government institutions), before social exchange can take place. Experts suggest that trust plays an important role that leads to the social exchange process in economic development (Nunkoo & Smith, 2013). Trust is believed to promote cooperation, reduce risk during transaction, instil support, shape attitudes, and strengthen relationship between partners (Morgan & Hunt, 1994). Past record of transaction between partners influence the current trust. Partner that delivers transaction as promised and satisfactorily may gain continuous trust. In the case of tourism development, residents that gain benefits from tourism and are not harmed in any way will likely to have stronger trust in government institutions that responsible for tourism development. Besides past track records, several other cues are also considered before public establish their trust. These cues include the expected outcomes - both positive and negative consequences, and good will.

In tourism industry, public trust is even more important as governments play central roles in heritage tourism planning and development (Wang & Bramwell, 2012). Government's roles in tourism is understandable as tourism has political and economic interests (Jenkins, 2001). Politically, government wants the citizens to benefit socially and economically from tourism. In terms of economic, tourism is recognised as a major foreign exchange earning in many developing countries. Public trust can also become the indicator of success for current policy on tourism development. Tourism development that satisfies public's expectations will likely gain the trust from citizens.

In addition, according to Nunkoo and Ramkissoon (2011, p. 21), “the magnitude of the relationship between political trust and support is dependent on the types of governmental policies”. Thus, investigating the effect of different tourism development policies (i.e. sustainable tourism development) on trust could contribute significantly to the literature.

In political context, the positive outcomes strengthen the relationship between the government and its citizens (Blau, 1964; Nunkoo, 2015). This strong relationship leads to continuous commitment and enhance trust. The positive outcome is not necessary financial, but can also be in the form of non-material aspects of social life including standard of living, peacefulness, safety, security, and health. Nunkoo (2015) further asserted that the government actors who created the policy that satisfy the citizens is in fact entering into an exchange process with the citizens who then in return responded with trust. This process is also highlighted in the social exchange theory which posits that the positive and negative outcomes influence trust and can persuade the people to enter into or leave an exchange.

Various field of studies that examine trust offer different concepts and measurements. However, there seems to be some consensus on measurement of trust. The majority of studies across diverse disciplines have included benevolent as one of the items in measuring trust (Cumming & Bromiley, 1996; McAllister, 1995; Tzafrir & Dolan, 2004). Besides that, other characteristics that represent trust are ability (Cumming & Bromiley, 1996; McAllister, 1995; Tzafrir & Dolan, 2004), integrity (McAllister, 1995; Tzafrir & Dolan, 2004), honesty (Andaleeb, 1992; Morgan & Hunt, 1994), and predictability (Cumming & Bromiley, 1996; Robinson, 1996).

In this study, the measurement for trust was based on closely related researches in political support for tourism development. Some of the characteristics of trust mentioned in the above literature were embedded into the measurement of trust in government. Nunkoo and Ramkissoon (2011b) operationalized trust as residents' confident level in government institutions that are responsible for planning and development. It covers five items that evaluate residents' trust on various government institutions, i.e. related ministries, district authority, and village leadership. Another identical study was also carried out by the same author in 2012, made some modification of trust measurement items by expanding the number of government institutions from five into seven. In contrary, a later study conducted by Nunkoo et al. (2012) have simplified the trust measurement into only three items. These items relate closely to trust in government decision, trust on capacity of people who make the decision, and trust in work done by the government institution. This latest measurement was selected in this study as it is precise and more easily understood from the rest. Furthermore, the lesser the number of items, the better the responses as it can avoid the problem known as respondents fatigue.

Recently, researches on understanding the influence of trust in government institutions on support for tourism is emerging, though only a very limited number of studies have tested this relationship (Nunkoo et al., 2012; Nunkoo & Ramkissoon, 2011a; Nunkoo & Ramkissoon, 2011b). Nunkoo & Ramkissoon (2011b) found that trust in government institutions established a positive relationship with perceived benefits and a negative relationship with perceived costs which are consistent with the earlier study conducted by Nunkoo & Ramkissoon (2011a). In addition, the later also tested the effect of trust on support for tourism. The result indicates that trust positively effects support for

tourism, which is also the case for the study carried out by Nunkoo et al. (2012). The results of the above studies suggest that residents' trust in government play an important role in shaping their perceptions and in consequence lead to support or opposition to tourism. These findings are in line with other studies outside tourism (Bronfman, Vazquez, & Dorantes, 2009; Siegrist, 2000; Siegrist & Cvetkovich, 2000) which suggest that trust influence risk and benefits associated with an activity or programme. Due to limited studies examining the effect of trust on support for sustainable tourism development, a further study on this aspect is required to validate the social exchange theory.

In summary, trust in government could be one of the main factors that influence support for sustainable tourism development. However, thus far very limited studies have been conducted to examine this factor, especially in the case of developing countries like Malaysia. The inclusion of trust in government in this study may also provide empirical evidence needed to support the social exchange theory which postulates that without trust there would be no exchange between actors.

#### **2.6.5 Perceptions toward WHS Designation**

The mediating variable examined in this study is perception towards the designation of Lenggong Valley as WHS. The decision to treat this factor as the mediating variable is linked to a number of reasons. Firstly, according to Baron and Kenny (1986) a mediating variable plays an important role in explaining the relationships between predictor and criterion variable. Without mediating variable, the relationship between predictor and criterion variables could not have existed. This notion is supported by stimulus-organism-response model (S-O-R) pioneered by Woodworth (1928) and



further perfected by Donovan & Rossiter (1982). Under S-O-R, active organism often intervenes the relationship between stimulus and response. The main tenet of this model is that, “the effects of stimuli on behaviour are mediated by various transformation processes internal to the organism” (Baron and Kenny, 1986, p. 1176). In other words, the stimulus will be assessed by internal psychological process before it can influence the behaviour. The internal psychological process may cover attitudes, emotion, judgment, thinking and motivation (Buxbaum, 2016). In the case of this study, the internal psychological process is the perception towards WHS designation, meanwhile the stimulus may be represented by community attachment, community involvement, local economic condition, and trust in government institutions. Thus, support for sustainable tourism development as the ‘behaviour’ is established after undergoing the above processes.

Secondly, according to the literature, there are several studies that confirmed perceptions towards tourism as the mediating variable (Lee, 2013; Nicholas et al., 2009; Nunkoo et al., 2010). Lee (2013) found that perceptions towards tourism acted as the mediating variable on the relationship between community attachment, community involvement, and support for sustainable tourism development. Similarly, Nicholas et al. (2009) also found that perceptions towards tourism functioned as the mediating variable for community attachment and support for sustainable tourism development, but not for the relationship between community involvement and support for sustainable tourism development. Meanwhile, Nunkoo et al., (2010) proposed that the relationship between residents’ identity and support for tourism development is mediated by perceptions towards tourism. The findings of these three studies become the starting point for testing perceptions towards WHS as mediating variable in this present study.

In general, perception is defined as “the impressions people form of one another and how interpretations are made concerning the behaviour of others” (Hargie (1986, p. 47). Grobler (2005, p.22) further explained that perception is related to “the observation that people make about intentions, attitudes, emotions, feelings, ideas, abilities, purposes, traits, thoughts, memories – events that are inside a person and strictly psychological”. In this study, local residents’ ‘impressions’ are discussed by investigating what they currently understand about the implication of WHS designation from their perspectives.

Consequently, there is a reason why ‘perception’ is preferred over ‘attitude’ for this current study. It is because ‘perception’ can be assessed without one’s prior knowledge or experience of the object or person. ‘Attitude’ as opposed to ‘perception’, can only be created during or after the process of learning, and acquiring knowledge. As cited from Kurtz and Boon, (1984, p. 206) “attitude represents a person’s enduring predisposition or action tendencies to some objects”. Thus, for this present study, the majority of residents developed perceptions, but lack of first-hand exposure to heritage conservation and tourism development to form their own predisposition or stigma. Therefore, it is more appropriate to use ‘perception’ rather than ‘attitude’ in discerning responses from the local residents.

Studies on perception have its root in the disciplines of social psychology. Social psychology deals mainly with social actions and on interrelations of personality, values, and mind with social structure and culture (Feist, 1998). Some major topics in this field are socio-cultural change, social inequality and prejudice, leadership and intra-group behaviour, social exchange, group conflict, impression formation and management, identity and roles, and the likes. The social exchange theory developed by Homans

(1958), Blau (1964), and Emerson (1972) is the most widely used theory to explain such social impacts phenomenon. This theory is a social psychological perspective that explains social change and stability as a process of negotiated exchanged between parties.

The studies on perceptions are very wide in its scope. This study on the other hand, is interested to examine only people perceptions related to WHS designation. Early researches (Milman & Pizam, 1988; Perdue et al., 1990; Prentice, 1993; Ritchie, 1988) indicated that perceived positive impacts of tourism have significant relationship with support for tourism development. Meanwhile negative perceived impacts of tourism formed inverse relationship with support. However according to Perdue et al. (1990), such relationships may only hold true when personal benefits obtained from tourism were controlled. In other words, those who obtained personal benefits from tourism will most likely support tourism regardless of their perceptions.

Contrary to the above studies, Gursoy et al. (2002) found that only perceived benefits of tourism have significance relationship with support, but not the perceived costs. The insignificant impact of perceived costs on support may be explained by other factors such as the level of local economic development (Allen et al., 1993; Perdue et al., 1990). Regions with depressed economic condition will likely to see tourism as an economic saviour regardless of the negative impacts brought with it. In consequence, Gursoy and Rutherford (2004) proposed a new model that expanded on the finding of Gursoy et al.'s (2002) study by breaking down the impacts further into five areas: economic benefits, social benefits, social costs, cultural benefits, and cultural costs. The result of their study however has rejected three hypotheses pertinent to perceived

impacts: proposed positive relationship between social benefit and support; proposed negative relationship between social cost and support; proposed negative relationship between cultural costs and support. However, perceived economic benefit was found to have significant relationship with support. This suggests that social benefits, social costs, and cultural costs do not have any influence on support.

In the same vein, Gursoy et al. (2009) conducted yet another study on support, but this time was dedicated for two types of tourism developments (mass tourism vs. alternative tourism). They utilised the same independent variables as in Gursoy and Rutherford's (2004) with an additional new variable - socio-economic costs. The findings indicated that perceived economic benefits positively relate to support for both mass tourism and alternative tourism. However, perceived positive cultural impacts were found to form positive relationship with support for alternative tourism, but not with support for mass tourism. In this sense, mass tourism was perceived to create negative cultural impacts on the community. Perceived positive social impacts on the other hand, were found to have no significant relationship with support for both mass tourism and alternative tourism. Meanwhile, perceived negative socio-economic impacts were found to strongly oppose mass tourism development. The new contribution of their study was more towards the differences in perceived impacts associated with support for mass tourism and alternative tourism. In overall, their study indicated that the support for alternative tourism is higher than mass tourism especially when taking into consideration the perceived cultural and socio-economic impacts factors.

Vargas-Sánchez et al. (2009) confirmed a direct relationship between both perceived benefits and perceived costs with support, which contradicted studies done by Gursoy et

al. (2002), and Gursoy and Rutherford (2004). Their results suggest that local residents engage in behaviour consistent with their attitudes. In fact, according to the social exchange theory, residents are likely to support development as long as they believe that the expected benefits outweigh the costs and vice versa.

A study by Nunkoo and Ramkissoon (2011a) also indicated a direct relationship between both perceived benefits and perceived costs with support. In addition to that, it was also found that perceived benefits has greater influence on support than perceived costs, in congruence with that of Vargas-Sánchez et al. (2009). Similarly, Nunkoo and Gursoy (2012) also found that perceived benefits formed positive relationship with support, meanwhile perceived costs formed negative relationship with support. However, another study by Nunkoo and Ramkissoon (2011b) contradicted earlier study by Nunkoo and Ramkissoon (2011a), whereby only perceived benefits established direct relationship with support, but not for perceived costs. On the other hand, a study by Long and Kayat (2011) in Vietnam found that residents with positive perceptions toward tourism were more supportive of tourism development than the rest. In particular, their support were mainly attributed by economic, socio-cultural, and environmental benefits brought by tourism. But interestingly, residents with negative perception of environmental impacts also tend to be supportive of tourism development, which is quite contrary with the many studies in this area. This condition could be explained by the personal benefits gained by local residents from tourism thus undermining the negative environmental impacts in favour of economic benefits.

Recently, Lee (2013) assessed the support of community residents for sustainable tourism development using the variables of community attachment, community

involvement, perceived benefits, and perceived costs tested on the residents of the Cigu Wetland, which is located in southwest Taiwan. Perceived benefits became the mediating variable that affect the relationship between community attachment and support for sustainable tourism development, and also between community involvement and support for sustainable tourism development. Meanwhile, Kayat et al. (2013) in a study conducted in Thailand, suggest two factors that can be used to measure perceptions toward tourism; (1) perceived benefits of tourism, (2) favourable attitudes toward tourism development. Their study found that individual impacts and collective impacts influence residents' perceptions toward tourism development. Specifically, the positive impacts on individual and collective levels lead to favourable perceptions toward tourism development.

In the case of Malaysia, a number of studies have been conducted to investigate local people's perceptions toward tourism development (Hanafiah et al., 2013; Marzuki, 2011; Ling et al., 2011; Mohd Shariff & Zainol Abidin, 2013). Studies by Hanafiah et al., (2013) and Ling et al. (2011) indicated that local residents were very supportive of tourism development because they believed on the benefits gained especially in term of economic impacts (e.g. improve local economies, job opportunities, and businesses) and social impacts (e.g. residents' pride, cultural activities, and recreational activities). Mohd Shariff and Zainol Abidin (2013) on the other hand further refined the instrument used to measure attitudes towards tourism development known as Malaysian Community Tourism Impacts Attitudinal Scale or in short MACTIAS. Their study established eight dimensions of attitudes including amenity services, economic and socio-cultural impacts, negative socio-cultural impacts, financial and socio-economic impacts, historical and cultural impacts, socio-cultural and community impacts, and

service impacts. These measurement items were also taken into consideration in this current study. Meanwhile, Marzuki's study in Langkawi categorized perceptions toward tourism impacts into 3 main factors, namely cost created by tourism development, benefits generated from tourism, and socio-economic impacts. In general, his study found that people in Langkawi believed that tourism brought more benefits than costs.

Although there have been many studies on perceptions towards tourism development, however only a few have been carried out investigating perceptions towards WHS (Besculides, Lee, & McCormick, 2002; Jimura, 2010; Maikhuri et al., 2001; Nicholas et al., 2009). The consequences of WHS designation are twofold, first the impacts from tourism development, and second is the impacts from mandatory conservation of WHS as will be discussed further in the following section.

Within WHS, Nicholas et al. (2009) examined resident perception towards heritage sites and support for sustainable tourism development in Pitons Management Area (PMA), St. Lucia. Independent variables for both perceptions and support for sustainable tourism development have also been identified covering community attachment, and local involvement. The findings also indicated that these factors have significant relationship with perception toward heritage sites. Perception was also found to have a direct relationship with support and at the same time acting as the mediating factor between the independent variables and support. Meanwhile, Chand (2013) in his study on WHS in Pragpur, India found that the benefits gained from heritage tourism can be categorised into 4 dimensions namely (1) environmental benefits, (2) cultural benefits, (3) heritage diversity benefits, and (4) economic benefits. Cultural benefits and heritage diversity benefits were the two most important factors rated by respondents.

In Maikhuri et al.'s (2001) negative perceived impacts as a result of conservation cover deterioration of rural economy due to damage crop and livestock by wildlife, and termination of opportunities of income from wild medicinal plant resources and tourism in the core zone of Nanda Devi Biosphere Reserve (a WHS) in India. Meanwhile in Unites States, Besculides et al. (2002) indicated that local residents perceived cultural heritage sites both positive and negatively. In their study, a total of thirteen items used to measure the benefits of having cultural heritage within their locality. The remaining four items on the other hand, captured the negative impacts of having such cultural heritage. On the same ground, another study by Jimura (2010) was carried out examining economics, socio-cultural, physical and attitudinal changes in and around WHS of Ogimachi from local communities' stand point. Several positive and negative changes as a result of world heritage listing were identified. These changes were influenced by a number of factors: the extensive and rapid tourism development after WHS inscription, the high level of appeal of a WHS status for domestic tourists, and local people's attitudes towards conservation of WHS. The findings suggest that local people perceive the designation of WHS mostly in positive manner. However, residents who live outside the WHS do not enjoy the benefits of tourism, thus are quite unhappy about this situation.

Recently, a similar study by Rasoolimanesh et al. (2015) was conducted on residents' support for tourism development in Lenggong using a number of variables namely community attachment, economic gains, environmental attitudes, economic involvement, and perceptions towards tourism. Their study found that in particular, positive perceptions have positive relationships with support for tourism, meanwhile an inverse relationships between negative perceptions and support for tourism



development was observed. However, their study focused more on the perceptions towards tourism rather than the towards WHS designation in Lenggong.

In conclusion, studies examining perceptions towards WHS have been very limited despite its economic and cultural importance. Most of the studies in the literature focused on perceptions towards tourism development in general. Examining perceptions towards WHS contribute significantly to the body of knowledge in heritage management. In addition, mediating roles of perceptions towards WHS on the relationships between community attachment, community involvement, perceived local economic conditions, trust in government, and support for sustainable tourism development have been very limited as far as the author is concerned.

The following table summarizes the findings discovered in the above literature review on factors that influence support for sustainable tourism development.

Table 2.2

*Summary of Related Findings from Previous Studies*

<b>Authors</b>	<b>Theory used</b>	<b>Related findings</b>
Um and Crampton (1987)	Social exchange theory	Community attachment correlates negatively with perception towards tourism
Milman & Pizam (1988)	Social exchange theory	Perceived positive impacts have a positive relationship with support for tourism  Perceived negative impacts have an inverse relationship with support for tourism
Ritchie (1988)	Social exchange theory	Perceived positive impacts have a positive relationship with support for tourism  Perceived negative impacts have an inverse relationship with support for tourism
Perdue et al. (1990)	Social exchange theory	Perceived positive impacts have a positive relationship with support for tourism  Perceived negative impacts have an inverse relationship with support for tourism

**Table 2.2 Continued**

Prentice (1993)	Social exchange theory	Perceived positive impacts have a positive relationship with support for tourism  Perceived negative impacts have an inverse relationship with support for tourism
McCool and Martin (1994)	Social exchange theory	Community attachment have NO relationship with perceptions of tourism impacts
Jurowski et al. (1997)	Social exchange theory	Community attachment have NO relationship with perceptions of tourism impacts
Gursoy et al. (2002)	Social exchange theory	Perceived benefits have a positive relationship with support for tourism  Perceived cost have NO relationship with support for tourism  Perceived local economic condition have an inverse relationship with support for tourism
Gursoy and Rutherford (2004)	Social exchange theory	Perceived economic benefits have a positive relationship with support for tourism  Perceived social benefits have NO positive relationship with support for tourism  Perceived social costs have NO negative relationship with support for tourism  Perceived cultural benefits have a positive relationship with support for tourism  Perceived cultural cost have NO negative relationship with support for tourism  Perceived local economic condition have an inverse relationship with support for tourism
Gursoy et al. (2009)	Social exchange theory	<u>Support for mass tourism</u>  Economic benefits have a positive relationship with support for mass tourism  Cultural benefits have NO positive relationship with support for mass tourism  Social benefits have NO positive relationship with support for mass tourism  Socio-economic costs have negative relationship with support for mass tourism  Social costs have NO relationship with support for mass tourism

**Table 2.2 Continued**

		<u>Support for alternative tourism</u>
		Economic benefits have a positive relationship with support for alternative tourism
		Cultural benefits have a positive relationship with support for alternative tourism
		Social benefits have NO positive relationship with support for alternative tourism
		Socio-economic costs have NO relationship with support for alternative tourism
		Social costs have negative relationship with support for alternative tourism
Vargas-Sánchez et al. (2009)	Social exchange theory	Perceived benefits have a positive relationship with support for tourism
		Perceived cost have an inverse relationship with support for tourism
Nicholas et al. (2009)	Stakeholder theory	Perceptions of WHS have a positive relationship with support for sustainable tourism development
		Community attachment have a positive relationship with support for sustainable tourism development
		Community involvement have NO relationship with support for sustainable tourism development
		Perceptions of WHS mediates the relationship between community attachment and support for sustainable tourism development
		Perceptions of WHS does NOT mediate the relationship between community involvement and support for sustainable tourism development
Nunkoo & Ramkissoon (2011a)	Social exchange theory	Perceived benefits have a positive relationship with support for tourism
		Perceived costs have a negative relationship with support for tourism
		Trust in tourism institutions have a positive relationship with perceived benefits
		Trust in tourism institutions have a negative relationship with perceived costs

**Table 2.2 Continued**

Nunkoo & Ramkissoon (2011b)	Social exchange theory	Perceived benefits have a positive relationship with support for tourism  Perceived costs have NO negative relationship with support for tourism  Trust in government actors have a positive relationship with support for tourism  Trust in government actors have a positive relationship with perceived benefits  Trust in government actors have a negative relationship with perceived costs
Ling et al. (2011)	Social exchange theory	Perceived positive impacts have positive relationship with support for tourism development  Perceived negative impacts have negative relationship with support for tourism development
Long and Kayat (2011)	Social exchange theory	Perceived positive socio-cultural impacts have positive relationship with support for tourism  Perceived positive environmental impacts have positive relationship with support for tourism  Perceived negative environmental impacts have positive relationship with support for tourism
Nunkoo et al. (2012)	Social exchange theory	Public trust in tourism institutions have a positive relationship with support for tourism development
Nunkoo and Gursoy (2012)	Social exchange theory  Identity theory	Positive attitudes have a positive relationship with support for tourism  Negative attitudes have a negative relationship with support for tourism
Lee (2013)	Social exchange theory	Perceived benefits have a positive relationship with support for sustainable tourism development  Perceived cost have an inverse relationship with support for sustainable tourism development  Community attachment have a positive relationship with support for sustainable tourism development

**Table 2.2 Continued**

		Community involvement have a positive relationship with support for sustainable tourism development
		Perceived benefit mediates the relationship between community attachment and support for sustainable tourism development
		Perceived cost does NOT mediate the relationship between community attachment and support for sustainable tourism development
		Perceived benefit mediates the relationship between community involvement and support for sustainable tourism development
		Perceived cost does NOT mediate the relationship between community involvement and support for sustainable tourism development
Nunkoo et al. (2012)	Social exchange theory	Trust in tourism institutions have a positive relationship with support for tourism
Hanafiah, et al. (2013)	Social exchange theory	Positive economic impacts lead to support for future tourism development Positive social impacts lead to support for future tourism development
Rasoolimanesh et al. (2015)	Social exchange theory	Community attachment have positive relationship with positive perceptions Community attachment have inverse relationship with negative perceptions Involvement in decision-making have positive relationship with positive perceptions Involvement in decision-making have NO inverse relationship with negative perceptions Positive perceptions have positive relationship with support for tourism Negative perceptions have inverse relationship with support for tourism

## 2.7 Underpinning Theory

There have been a number of theories suggested by scholars to explain attitudes and behaviour towards tourism development. Brystranzanowski (1989) for example

proposed several theories including play theory, compensation theory, and conflict theory. Pearce (1989) also mentioned about the possibility of adopting attribution theory. Although the above theories were suggested by these scholars, yet they failed to offer a detailed explanation on how such theories can be applied in studies examining community attitudes. Preister (1989) in turn proposed the dependency theory, but later discovered that this theory failed to account for both positive and negative aspects of tourism development. In the contrary, theory of reasoned action has been quite prominent in predicting behaviour. It has successfully explained how attitudes or perceptions influence behaviour in various researches including in voting (Ajzen & Fishbein, 1980), travel and leisure services (Austin, Hoge & Austin, 1990), natural resource management policies (Kim & Weiler, 2013; Manfredo, Fishbein, Haas, & Watson, 1990), and outdoor recreation behaviour (MacKay & Campbell, 2004; Wittman & Vaske, 1998; Zinn, Manfredo, Vaske, & Wittman, 1998). In addition to attitudes, behavioural norm was also included in this theory as another determinant for behaviour. Unfortunately, despite its usefulness in predicting behaviour, it is still not widely applied in studies examining community attitudes and support for sustainable tourism development as compared to social exchange theory.

Based on the above debate, this study has finally adopted social exchange theory due to several reasons. According to Ap (1992, p. 667), “the advantages of using social exchange theory are that it can accommodate the explanation of both positive and negative perceptions, and can examine relationship at individual or collective level”. This theory is also appropriate to handle cases involving micro level orientation, in particular - local community level, unlike for example dependency theory which is largely restricted to macro-level orientation (Preister, 1989). Most importantly, this

theory offers a very clear and simple framework that able to elicit perceived benefits and costs of tourism development (Lee & Back, 2006; Sinclair-Maragh & Gursoy, 2015). In addition, it is also characterised as a behavioural theory that explains and predicts the reactions of individuals in an interactive situation (Ap, 1992).

Early development of social exchange theory is pioneered by sociologists such as Homans (1958), Blau (1964), and Emerson (1972). Today, this theory is being widely used as the framework in various researches associated with social behaviour. Homans (1958, p. 3) defined social exchange as “activity, tangible or intangible, and more or less rewarding or costly, between at least two person.” In physical market, people exchange money with goods and services. However, such transaction may be extended into exchanging social capitals like power, trust, participation, support and many more. In tourism, the exchange may occur between two or more actors, for example the exchange between residents, government, and industry. Residents may be willing to participate and support tourism in return for various benefits generated from tourism activities.

Ap (1992) in his seminal work is among the first scholars who systematically discussed the application of social exchange theory in community attitudes to tourism development. This theory has been described as “a general sociological theory concerned with understanding the exchange of resources between individuals and groups in an interaction situation” (Ap, 1992, p.668). The theory assumes that residents who believe they will benefit from proposed development project or policy (e.g. tourism development) are likely to view it positively, while those who perceive costs will view it negatively. For further understanding of this theory, Ap (1992) constructed a

theoretical model of social exchange process which can be used to explain how the residents involved in the exchange process, continue this exchange, or become disengaged with this process.

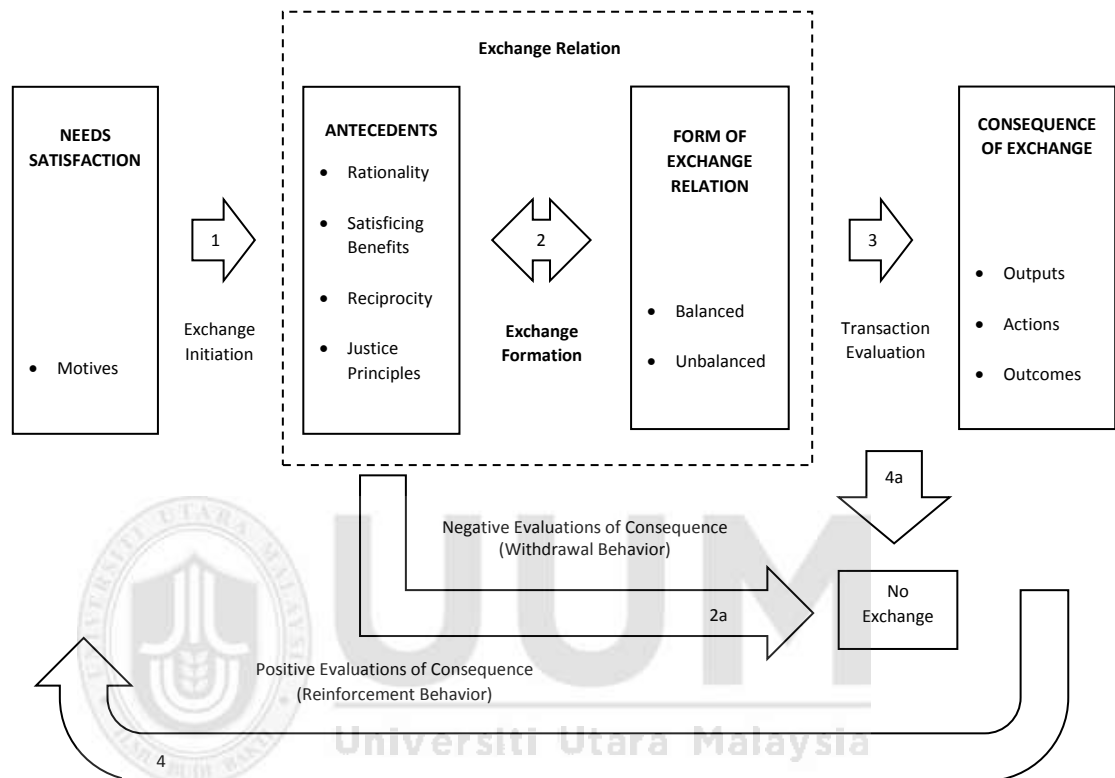


Figure 2.7. Social exchange process model (Ap, 1992)

The above model consists of 4 major components in the exchange process, namely (1) need satisfaction, (2) antecedents, (3) form of exchange relations, (4) consequence of exchange or no-exchange outcomes. The arrows in the model represent the flow of the exchange process which connects the above components. These flows are named: (1) initiation of exchange; (2) exchange formation; (3) exchange transaction evaluation; (4) positive evaluation of exchange consequence. In addition to that, arrows (2a) and (4a) signals the negative evaluation of exchange consequences that lead to withdrawal of exchange behaviour.



The first component, the 'need satisfaction' refers to the motives that triggers the exchange process. People have many needs to be satisfied including stable career, social wellness, better standard of living, security, love and many more. The second component 'the exchange relation' meanwhile comprises of the antecedents and form of exchange relation. The antecedents comprise of several elements but not limited to rationality, satisficing benefits, reciprocity, and justice principles. When all the above independent variables have been taken into consideration, then the exchange process moves to 'form of exchange relation' as indicated by Flow 2 'exchange formation'. This flow is a two-way relationship. If the residents perceived that the transaction as balance, then they will enter into the exchange. However, if the transaction perceived as unbalance, then local residents will withdraw from the exchange as represented by Flow 2a.

Once the form of exchange relation is considered as balance then actors will continue to the next stage, which is called the 'consequence of exchange' connected by Flow 3 'transaction evaluation'. After the transaction has taken place both actors then will evaluate the consequence. If the consequence is perceived positively and rewarding, then the exchange will continue in the future (Flow 4). Alternatively, if the consequence is unrewarding, the exchange will likely to be withdrawn in the future (Flow 4a).

Besides Ap (1992), Jurowski et al. (1997) also developed a good theoretical framework that explains the social exchange process with additional perspectives. According to their study, residents' reactions towards tourism not only confined in how people weight the benefits and costs in the exchange process, but were more complicated than that. In addition to the evaluation of benefits and costs, residents' reactions could also

be determined by the value that people place on the exchange consequences. For example, although many people realized that tourism development would bring considerable impacts on the environment, yet they remain supportive of tourism for the sake of economic gains that they enjoyed. Thus, people evaluation is not a straight forward process as explained in the earlier application of social exchange theory.

Jurowski et al. (1997) also integrated several new elements into the theoretical framework, namely community attachment, economic gains, and environmental attitudes. They argued that residents with strong community attachment are more concerned about the impacts of tourism than the others, thus influencing their perceptions towards tourism. Meanwhile, those residents who received personal economic gains from tourism, were more supportive of tourism regardless of the negative impacts. On the other hand, residents with strong ecocentric attitudes were found to perceive tourism as a threat for environmental protection. This theoretical framework has also been successfully applied in the study by Rasoolimanesh et al. in 2015.

Until today, social exchange theory remains one of the most appropriate frameworks to study community support for tourism development (Gursoy & Rutherford, 2004; Lee, 2013; Nunkoo & Gursoy, 2012). Since the application of this theory in tourism attitude studies by Ap (1992), not much has changed in its theoretical foundation. However, recent studies using this theory managed to incorporate other variables that explain support for tourism development the likes of personal benefits (Ling et al., 2011; Walpole & Goodwin, 2001); community attachment (Gursoy et al., 2002; Gursoy & Rutherford, 2004; Lee, 2013; Nicholas et al. 2009); perceived local economic condition

(Gursoy et al, 2002; Gursoy & Rutherford, 2004; Jurowski & Gursoy, 2004); community involvement (Lee, 2013; Nicholas et al. 2009); trust (Nunkoo & Ramkissoon, 2011b; Sinclair-Maragh & Gursoy, 2015).

However, most of the studies using social exchange theory did not specifically mention how the other variables, e.g. community attachment, community involvement, perceived economic condition, and trust were integrated into the theory. Their discussions were made solely on the role of perceptions towards tourism and how does it affect support for tourism development as theorised by the social exchange theory. Until recently, scholars suggest that the exchange process can never take place when there is no trust (Cook, 2000; Kayat, 2002; Nunkoo & Ramkissoon, 2012). There has to be trust among the exchange actors whether it is between the government and residents or even amongst residents themselves (Zafirovski, 2005). This in consequence triggers the use of trust in government as one of the variables to understand perceptions and support for sustainable tourism development.

In addition to social exchange theory, studies on attitudes and support for tourism development is often associated with Butler's tourism area life cycle model. Butler (1980) developed this model based on principles from product life cycle concept which starts with product introduction to the market, followed by its growth, maturity, and eventually decline. Earlier researches also contributed to the development of this model, especially works done by Cohen (1972), Doxey (1975), and Plog (1973). In tourism, a destination goes through various stages starting with exploration, involvement, development, consolidation, stagnation, and then decline stage (refer Figure 2.8). It has been one of the most widely used theories in tourism development studies. One of the

first applications of this theory was Gary Hovinen (1981) in a study on tourism development in Lancaster County, Pennsylvania. His study found that some of the Butler's six stages apply well than others in the context of Lancaster County, especially the 'involvement stage' and 'development stage'. However, the 'exploration stage' for example did not match the description in Butler's model. In Butler's model, 'exploration stage' is characterised as having no facilities at all, but in Lancaster, travellers accommodation are already in place built during colonial times even before it became tourist destination.

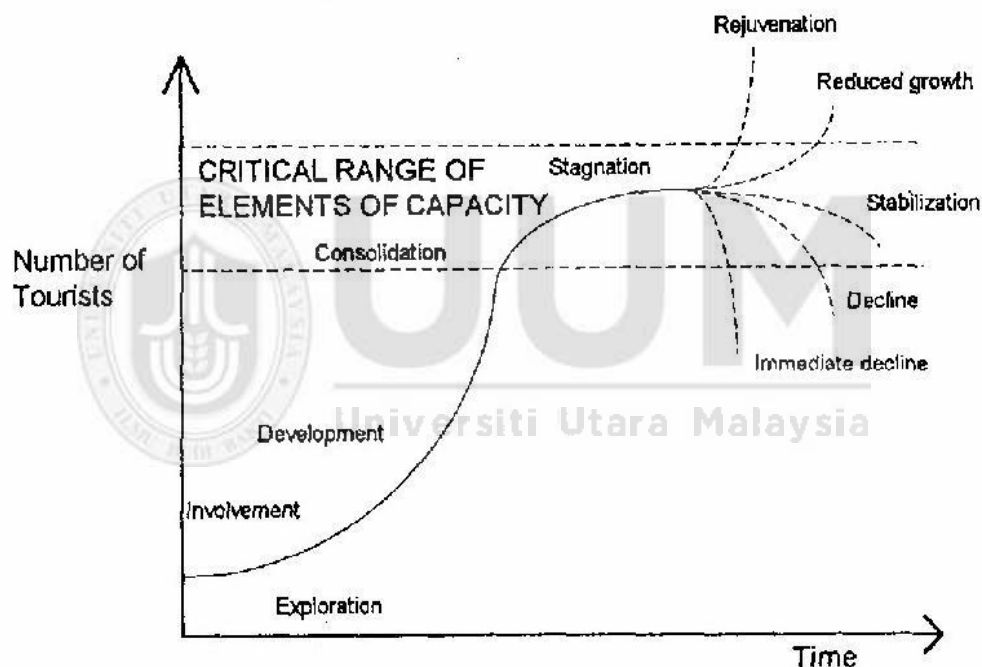


Figure 2.8: Hypothetical evolution of a tourist area (Butler, 2006)

Until today, the model is still being used to explain the changes in destination development. Putra and Hitchcock (2006) for example utilised this model in their study relating to the re-development of Bali after the bombing incidents in 2001. Cohen (2008) used the same model to explain the life cycle of tourist destination in Phuket in the aftermath of tsunami. Kompulla et al. (2010) applied this model in understanding

the life cycle of cultural festival in Lapland. All the above studies indicated the appropriateness of the model in explaining destination development stages.

This study in particular, is interested to understand residents' reactions towards tourism industry according to the stages of tourism development as explained by the tourism area life cycle model. Brougham and Butler (1981) claimed that residents are very much 'excited' about tourism at the 'exploration' and 'involvement' stage in the beginning of destination life cycle. However, this feeling changes after the 'consolidation stage' when the number of visitors exceed the local population. At this stage, local residents find visitors annoying, thus start to oppose tourism. The 'quality of life' on the other hand, can act as a mediator. It is proposed that residents who acquired economic benefits from tourism tend to be supportive of tourism regardless of its impacts on the society. This is also supported by the study conducted by Walpole and Goodwin (2001).

However, most of the supporting empirical evidences came from studies done in tourism destinations at the later stage of development (e.g. Andereck et al., 2005; Ballantyne et al., 2009; Byrd et al., 2009; Hanafiah et al., 2013; Kayat et al., 2013; Lee, 2013; Ling et al., 2011; Nicholas et al., 2009). Thus, very limited studies have examined how residents' perceptions and support for tourism at the beginning stage of tourism development. The findings of this study may contribute and validate the Butler's tourism area life cycle model.

Despite its usefulness, there are some cautions that must be exercised toward this model. First, each destination is unique and characterised by different socio-economic and geopolitical situations (Curto, 2006). So, it is inaccurate to assume that residents in

all destinations to have similar perceptions or attitudes to tourism at different stages of tourism development. For example, Mason and Cheyne (2000) argued that not all destinations follow step-by-step development stages as proposed in Butler's model. In other words, the existing model failed to consider instant resort phenomenon mushrooming overnight as in the case of Dubai and some other places.

## **2.8 Gaps in the Literature**

Based on exhaustive literature review on this subject, a number gaps has been identified as follow:

1. There have been very limited studies in understanding residents' support for sustainable tourism development in the context of WHS. In particular, this study focuses on how residents' perceived WHS designation at their locality and its relationship with support for sustainable tourism development. The majority of exiting studies concentrated merely on residents' perception towards tourism in general. The impacts of WHS on the local residents may differ from the impacts of tourism development. In particular, the impacts of WHS designation cover not only impacts of tourism development, but also the impact of mandatory conservation on people's life.
2. Existing studies on the influences of community attachment and community involvement on support for sustainable tourism development have been inconclusive due to conflicting results. In addition, previous studies conducted on community involvement have been largely qualitative and descriptive in nature. Thus, very little is known about the causal effect of community involvement on support for sustainable tourism development. This warrants further causal study on this aspect to improve the existing theoretical framework

that contribute to the body of knowledge on tourism attitudes and support literature.

3. The inclusion of trust as an independent variable strengthens the understanding about the variance that explains support for sustainable tourism development. This also provides additional empirical evidence that trust play a key role in the exchange process as proposed by social exchange theory. This could also improve the theoretical framework on social exchange theory. In addition, trust in government was said to be influenced differently according to types of development policies. Thus, investigating the effect of different tourism development policies (e.g sustainable development, world heritage tourism) on residents' trust could contribute significantly to the literature.
4. Previous studies examining these variables, i.e. community attachment, community involvement, perceived local economic condition, and trust in government institutions in isolation. This thesis however incorporated all the above variables into a single research framework to identify which variable has the most predictive power on support for sustainable tourism development. This also contributes to the development of the newly revised theoretical framework for residents' support for sustainable tourism development within WHS.
5. The mediating roles of perceptions towards WHS designation on the relationships between the understudy variables and support for sustainable tourism development have never been systematically tested. The mediating roles of this construct may also help solve inconsistencies on the effects of independent variables towards residents' support as suggested in many previous studies.

6. This study contributes to the understanding of residents' reactions towards tourism development according to different stages of tourism development using Butler's tourism area life cycle model as the basis. In this case, Lenggong is characterised as rural regions with early stage of tourism development.

## **2.9 Hypothesis Propositions**

Based on extensive literature review and theoretical framework of support for sustainable tourism development, a series of hypotheses were proposed, which related to the study objectives. The purpose of hypothesis is for confirming the conjectured relationship between two or more variables (Sekaran, 2000).

### **2.9.1 Direct Relationship Hypotheses**

There were four variables tested for their direct relationship with support for sustainable tourism development including community attachment, community involvement, perceived local economic condition, and trust in government institutions.

- H1: There is a significant relationship between community attachment and support for sustainable tourism development.
- H2: There is a significant relationship between community involvement and support for sustainable tourism development.
- H3: There is a significant relationship between perceived local economic condition and support for sustainable tourism development.
- H4: There is a significant relationship between trust in government institutions and support for sustainable tourism development.



### **2.9.2 Mediating Relationship Hypotheses**

The following hypotheses focus on the mediating roles of perceptions towards WHS designation between independent variables and support for sustainable tourism development:

- H5a: Perceived benefits of WHS mediate the relationship between community attachment and support for sustainable tourism development
- H5b: Perceived costs of WHS mediate the relationship between community attachment and support for sustainable tourism development
- H6a: Perceived benefits of WHS mediate the relationship between community involvement and support for sustainable tourism development
- H6b: Perceived costs of WHS mediate the relationship between community involvement and support for sustainable tourism development
- H7a: Perceived benefits of WHS mediate the relationship between perceived local economic condition and support for sustainable tourism development
- H7b: Perceived costs of WHS mediate the relationship between perceived local economic condition and support for sustainable tourism development
- H8a: Perceived benefits of WHS mediate the relationship between trust in government institutions and support for sustainable tourism development
- H8b: Perceived costs of WHS mediate the relationship between trust in government institutions and support for sustainable tourism development

## 2.10 Research Conceptual Framework

The following figure exhibits the research conceptual framework for this study.

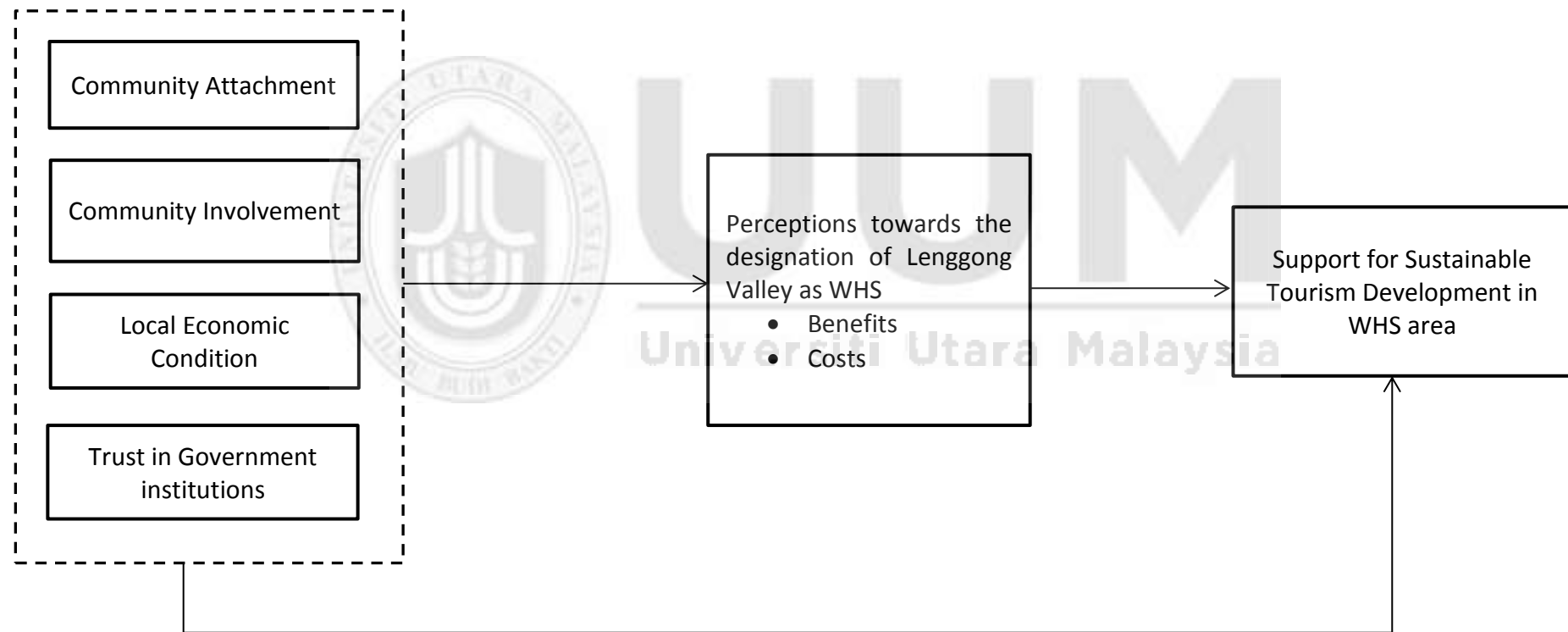


Figure 2.9. Research conceptual framework

### **2.11 Summary**

This chapter analyses early studies on all variables examined in the research framework of this study. The relationship between four independent variables and dependent variables have been discussed and highlighted. In addition to that, there were two mediating variables examined and hypothesized namely; perceived benefits of WHS designation, and perceived costs of WHS designation. Chapter 3 on the other hand, discusses the research methodology.



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the research methods that were employed in this current study. It covers study location profiles, research design, instrument development, sampling procedure, data collection process, validity and reliability, data analysis, and pilot test.

#### **3.2 Study Location and Profiles**

The study took place in the Lenggong District. It is located about 100 km north of Ipoh on the Kuala Kangsar to Grik road. Until today, it is still under-developed rural area mainly dominated by agricultural and logging activities. Tourism activities in the past were very limited. Using tourist arrival data collected at Lenggong Archaeological Museum as an indicator shows 84,000 visitors came in 2013 (Lenggong Archaeological Museum, 2014). However, this number is expected to grow significantly after its designation as WHS in July 2<sup>nd</sup>, 2012 and the completion of several development projects to make it as international heritage destination.

Currently, the image being projected for Lenggong is as 'Prehistoric Heritage Town', following various significant archaeological discoveries, especially the ancient skeletons of 'Perak Man' and 'Perak Women' together with hundreds of stone tools, some of which dated to be as old as 1.8 million years. Lenggong is also blessed with

abundant resources that have the potential to be developed as tourism products namely eco-tourism, cultural tourism, homestays, and recreations.

Lenggong District covers an area of 11,456.29 hectares and is divided into 7 planning blocks (Jabatan Perancang Bandar dan Desa, 2002). The main land use in Lenggong is for agriculture encompassing an area of 7,333.53 hectares. The rest of the planning blocks are for commercial, industry, and housing purposes with respective areas of 36.38 hectares, 79.44 hectares, and 111.38 hectares. The current population of Lenggong is 18,086 people (Lenggong District Council, 2010). The residents of Lenggong are dispersed into 18 villages. The details profiles of residents according to their respective hamlets are depicted in the following Table 3.1.

Table 3.1

*Population of Lenggong District*

No	Village	Mukim	Household	Gender		Total population
				Male	Female	
1	Sumpitan	Lenggong	249	532	542	1074
2	Gua Badak	Lenggong	257	432	414	846
3	Gelok	Lenggong	354	881	892	1773
4	Temelong	Lenggong	165	301	356	657
5	Lenggong Town	Lenggong	566	1296	1252	2548
6	Teluk Batu	Lenggong	218	448	458	906
7	Bukit Sapi	Lenggong	161	368	360	728
8	Chepor	Lenggong	212	421	503	924
9	Banggol Batu	Temelong	444	747	687	1434
10	Banggol Belimbing	Temelong	174	291	315	606
11	Kota Tampan Air	Temelong	128	191	211	402
12	Luat	Temelong	266	392	401	793
13	Chain	Temelong	136	217	256	473
14	Raban	Durian Pipit	170	321	440	761
15	Kuak	Durian Pipit	265	596	804	1400
16	Kelantan	Durian Pipit	168	458	528	986
17	Changkat Berangan	Durian Pipit	78	284	322	606
18	Beng	Durian Pipit	191	544	625	1169
<b>Total</b>			<b>4,202</b>	<b>8,720</b>	<b>9,366</b>	<b>18,086</b>

*Source: Lenggong District Council (2010).*

### **3.3 Research Design**

The philosophical model of this study is based on deductive theory as explained by the theory of knowledge (Bryman, 2004). From this perspective, this research starts with theoretical consideration, followed by hypothesis deduction, and empirical data collection. At the end, the findings are then used to confirm or reject the hypothesis. In addition to that, this study is also considered to be part of epistemological positions known as positivism. Positivism is an approach to discover knowledge based on similar methods of those in natural sciences. This includes the dependency on logical theory, mathematical proof, sensory experience, and other existing body of knowledge.

In particular, this study used quantitative data analysis in examining the relationship between the independent, mediating and dependent variables of interest. The quantitative method is synonym with the hypothetico-deductive approach. The questionnaire was built based upon extensive literature review in the related study areas. From the literature review, a number of factors were identified, and then used to deduce appropriate hypotheses in line with the objectives of this study. After all the data were collected, the multivariate data analysis techniques involving factor analysis, correlation, and multiple regression were then employed.

There are five phases of research process for this study as presented in Figure 3.1:

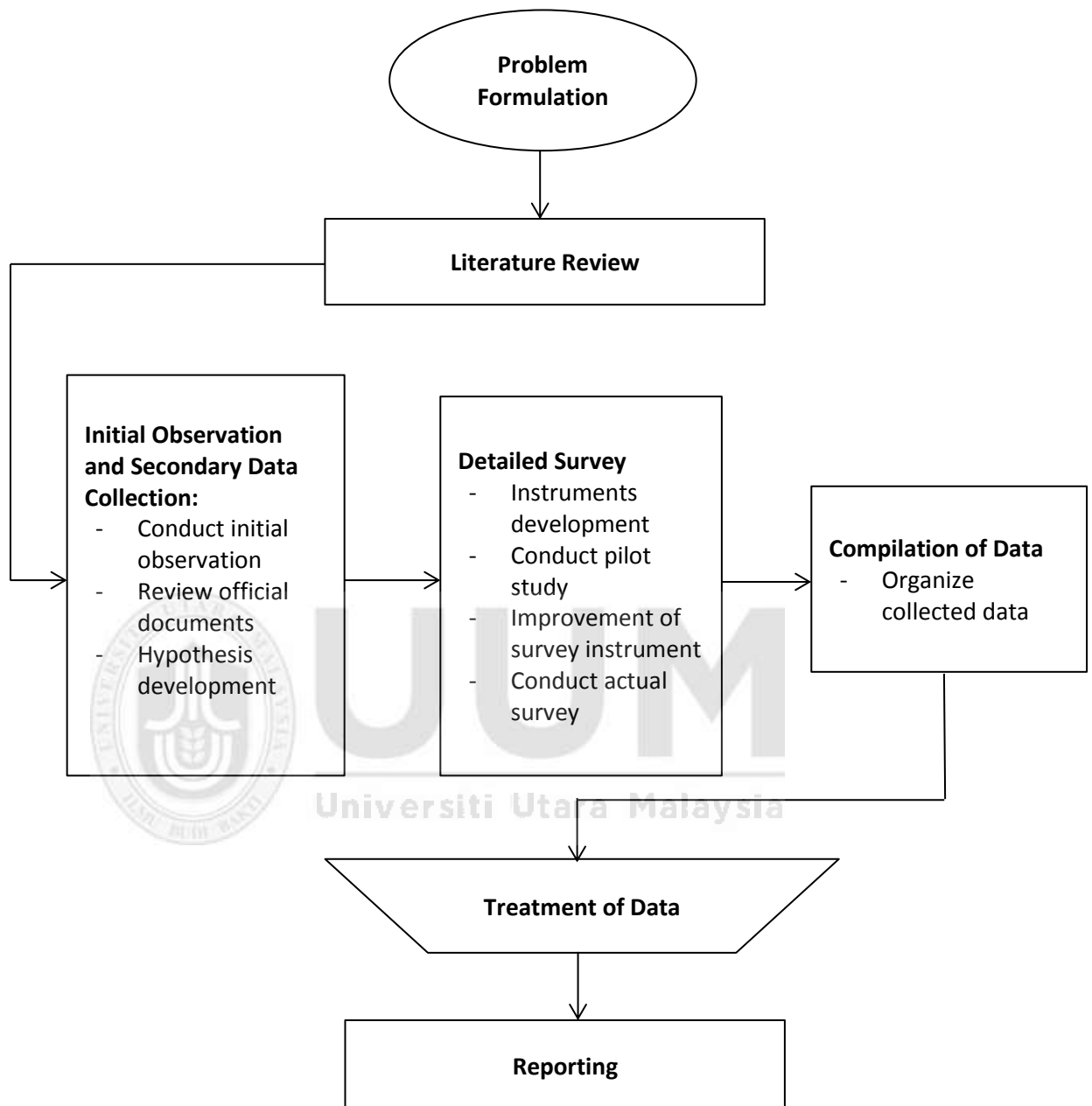


Figure 3.1. Research flow

### **3.4 Instrument Development**

The instruments were developed based on rigorous literature review within the area of investigation. Among the key references used to develop the instruments for this current study were from (Aas et al., 2005; Bank, 2010; Besculides et al., 2002; Gursoy, et al., 2002; Gursoy & Rutherford, 2004; Karanth et al., 2008; Maikhuri et al., 2001; Nicholas et al., 2009; Nunkoo et al., 2012; Theodori, 2004).

There were several variables for support towards sustainable tourism development identified as follows: (i) community attachment, community involvement, perceived local economic condition, and trust in government institutions as the independent variables; (ii) perceptions towards WHS designation as the mediating variables. In response to that, the questionnaire was organised into 7 main sections as follows:

- i. Community attachment
- ii. Community involvement
- iii. Perceived local economic condition
- iv. Trust in government institutions
- v. Perceptions towards WHS designation
- vi. Support for sustainable tourism development
- vii. Socio-demographic characteristics

### **3.5 Operationalization of Variables**

Operationalization of variable is the development of specific research instrument which can be practically measured using statistical scales (Kumar, Talib, & Ramayah, 2013). In this study, there were six variables measured namely: community attachment, community involvement, perceived local economic condition, trust in government



institutions, perceptions towards WHS designation, and support for sustainable tourism development. The operational definitions of the variables are listed below:

### 3.5.1 Community Attachment

The dimensionality of community attachment encompasses aspects such as friendship and kinship networks, and formal and informal association ties rooted in family life and on-going socialization process (Kasarda and Janowitz, 1974). This study utilised eleven items adopted from Theodori (2004) and Banks (2010). The measurement scale used was the continuous scale of where 1 indicated ‘strongly disagree’ and 7 as ‘strongly agree’. Higher score reflects high attachment with the community. The details of this scale items are presented below:

Table 3.2

*Measurement Items for Community Attachment*

No.	Items
1	I am very attached to this community
2	I feel like I belong to this community
3	The friendships and associations that I have with other people in this community mean a lot to me
4	If the people in the community were planning something, I’d think of it as something we were doing rather than they were doing
5	If I needed advice about something, I could go to someone in this community
6	I think I agree with most people in this community about what is important in life
7	I feel loyal to the people in this community
8	I plan to remain a residents of this community for a number of years
9	I’d like to think of myself as similar to the people who live in this community

---

**Table 3.2 Continued**

- |    |  |
|----|--|
| 10 | The future success of this community is very important to me |
| 11 | Given the opportunity, I'd move out of this community        |
- 

**Note:**

All scale items were developed and validated in previous study by Theodori (2004) & Banks (2010).

### 3.5.2 Community Involvement

The operationalization of community involvement is basically based on local community involvement in the decision-making process and in the benefits of tourism development (Timothy, 1999). The four items that measure community involvement were adopted from Nicholas et al. (2009) and Aas et al. (2005). The measurement scale used was the continuous scale of where 1 indicated 'not involved at all' and 7 as 'highly involved' as can be seen in the Table 3.3 below:

Table 3.3

*Measurement Items for Community Involvement*

No.	Items
1	My involvement in the management/operations of Lenggong heritage sites <sup>a</sup>
2	My involvement in the decision-making about the heritage sites <sup>a</sup>
3	My involvement in a committee that discuss the development and future of Lenggong as a tourism destination <sup>b</sup>
4	My involvement in occupation related to local tourism services <sup>b</sup>

---

**Note:**

<sup>a</sup> Scale items were developed and validated from previous study by Nicholas et al. (2009).

<sup>b</sup> Scale items was adapted from Aas et al. (2005).

### 3.5.3 Perceived Local Economic Condition

The measurement items used to measure the local economic condition were adapted from Gursoy and Rutherford (2004). Local economic condition is about the current

economy condition as perceived by the local residents. It is in particular includes the local people's view about the existing employment and business opportunities in the local area. The measurement scale used was the continuous scale of where 1 indicated 'strongly disagree' and 7 as 'strongly agree'. The inputs were then re-coded so that lower score represents poor economic condition and vice verse (e.g. 7 recoded into 1; 6 recoded into 2; and so on). The scale items for this variable are depicted in the following Table 3.4:

Table 3.4

*Measurement Items for Perceived Local Economic Condition*

No.	Items
1	Government should help to create more jobs in Lenggong District <sup>a</sup>
2	Lenggong desperately needs more job opportunities <sup>a</sup>
3	Lenggong needs more job opportunities to stop young people moving away to cities <sup>a</sup>
4	Lenggong desperately needs more business opportunities in the local area <sup>b</sup>

**Note:**

<sup>a</sup> Scale items were adapted from previous studies by Gursoy and Rutherford (2004).

<sup>b</sup> Newly added based on in-depth literature review.

### 3.5.4 Trust in Government Institutions

Trust in government institutions scale was developed and validated by Nunkoo et al. (2012). The measurement scale used were the continuous scale of where 1 indicated 'strongly disagree' and 7 as 'strongly agree'. Higher score indicates higher trust in government institutions that is responsible for the planning and development of Lenggong Valley as WHS tourism destination.

Table 3.5

*Measurement Items for Trust in Government Institutions*

No.	Items
1	I can generally trust the decision made by government institutions
2	I can generally trust the people who run government institutions to do what is right
3	Government institutions can be trusted to do what is right without having to constantly check on them

**Note:**

Scale items were developed and validated in previous study by Nunkoo et al. (2012).

**3.5.5 Perceptions towards WHS Designation**

This construct is intended to capture local residents' views and judgements towards the WHS designation from both the benefit and cost perspectives. The fourteen items used to measure this construct were integrated from several studies (Besculides et al., 2002; Karanth et al., 2008; Maikhuri et al., 2001; Nicholas et al., 2009). The measurement scale used was the continuous scale of where 1 indicated 'strongly disagree' and 7 as 'strongly agree'.

Table 3.6

*Measurement Items for Perceptions towards WHS Designation*

No.	Items
	<u>Benefits</u>
1	The protection of World Heritage Site benefits future generation <sup>a</sup>
2	It is important to protect the World Heritage Site for the survival of various archaeological artefacts <sup>a</sup>
3	Being part of community rich in culture & history <sup>b</sup>
4	Improving community's physical infrastructure <sup>b</sup>
5	Offer recreational activities for the locals <sup>b</sup>

---

**Table 3.6 Continued**

6	Growth of local cottage industries <sup>b</sup>
7	Tourism development potentials <sup>b</sup>
8	Outsiders/tourists encroachment to the area <sup>b</sup>
9	Recognition as World Heritage Site <sup>c</sup>
<u>Costs</u>	
10	The World Heritage Site does not provide jobs for people in our community <sup>a</sup>
11	The World Heritage Site has created problems in my life <sup>a</sup>
12	The World Heritage Site is too large and take up too much land space <sup>a</sup>
13	Restrictions on other economic activities (e.g. agriculture, mining, logging) <sup>c</sup>
14	Restrictions on future development potential (housing area, commercial area, industrial area etc.) <sup>c</sup>

---

**Note:**

<sup>a</sup> Scale items were adapted from Nicholas et al. (2009).

<sup>b</sup> Scales items were adapted from Besculides et al. (2002); Karanth et al. (2008); Maikhuri et al. (2001).

<sup>c</sup> Scale items were developed based on inputs from experts that are involved in the research and management of WHS.

### **3.5.6 Support for Sustainable Tourism Development**

In this study, the eight measurement items used to measure support for sustainable tourism development were adapted from a study by Nicholas et al. (2009). Support can be defined as an endorsement or inclination towards sustainable tourism development policies, programs, plans, projects in the WHS area. It is also important to note that, sustainable tourism development perspectives has been adopted into the processes of the World Heritage Convention (UNESCO, 2014). Consequently, any tourism development program within WHS must adhere to the principle of sustainability as sanctioned by UNESCO. Conceptually, the principle of sustainable tourism development consists of three major components - economics, environmental, and social (Butler, 1998; Swarbrooke, 1999). The economic component refers to local

residents' involvement in the economic activities related to tourism. Meanwhile, the environmental component covers heritage resources conservation and protection. The social component on the other hand, is associated with the values created by economic benefits and WHS designation inflicted upon the social life of the community. The measurement scale used was the continuous scale of where 1 indicated 'strongly oppose' and 7 as 'strongly support'. The scale items for this variable are depicted in the following table:

Table 3.7

*Measurement Items for Support for Sustainable Tourism Development*

No.	Items
1	Development of community-based tourism initiatives
2	Local involvement in tourism planning and development
3	Cooperation and unity in tourism planning and development
4	Promotion of heritage education and conservation
5	Commitment in adhering to the regulations & guidelines to maintain the World Heritage Site
6	Protection of Lenggong Valley as a UNESCO World Heritage Site
7	Support any penalty imposed to those who destroy the World Heritage Site
8	Don't care about development activities that jeopardize the integrity of World Heritage Site

**Note:**

Scale items were adapted from previous study by Nicholas et al. (2009).

A continuous scale (categorised as interval scale) is used because its credibility in measuring people's attitudes, and most importantly suitable for advanced statistical analysis like factor analysis and regression (Davis, Allen & Cosenza, 1988). The widely used Likert scale however is categorised as 'ordinal scale' that cannot be used for advanced statistical analyses the likes of factor analysis and regression (Sekaran, 2000).

All the above measurement items were then translated from English into Malay language, which is widely spoken by the majority of citizens in Malaysia. The translation exercise was carried out using back-translation procedure involving two different bilingual experts as recommended by Werner and Campbell (1970). The first expert translated the original items from English to Malay language. After that, the second expert re-translated the items from Malay language to English without seeing the original version. Finally, the quality of language is measured in terms of how the back-translated instrument corresponds with the original version (Geisinger, 2003). The survey questionnaire forms both in English and Malay version were attached in Appendix A and Appendix B respectively.

### **3.6 Sampling Procedure**

The purpose of sampling is to estimate the number of respondents that is statistically representative of the population being studied. Sampling can also greatly save cost and time by avoiding census of the entire population.

#### **3.6.1 Population Sampling and Unit**

The population investigated in this current study was the residents of Lenggong District who live in villages situated within and adjacent to the WHS. Based on the projection of resident population by District Council, there are about 18,086 people (4,202 households) who resided in this district. However, only five villages situated within and adjacent to the WHS were included in this current study. In addition to the five villages, a community residing in the town of Lenggong was also captured as respondents as they were considered as the gate community. The sampling unit selected was the households who live in the five villages and the town.

### 3.6.2 Sampling Technique and Sample Size

The most appropriate sampling technique for this current study is a proportioned random sampling design. In this study, the targeted population were all villages located within or adjacent to the WHS. In overall, there are five villages which fall under this category, namely Kampung Gua Badak, Kampung Gelok, Kampung Banggol Batu, Kampung Luat, and Kampung Beng. The reason being for such selection was that, the residents of these villages experience directly the impact of tourism development within the WHS, and also impacted by the conservation policy laid out in both the protection zones (core and buffer zones). In addition to that, the inclusion of residents of town of Lenggong as part of the study was due to the fact that they were considered as the gate community. Therefore, their reactions for the proposed tourism development and WHS designation are very much relevant. Although only 5 villages were included in this study, they actually represent each of all three *mukim* (or sub-district) within Lenggong. Then, the systematic random samples of every 3<sup>rd</sup> house from each village and town were selected for self-administered questionnaire. A random starting point was selected in each village and town borrowing the method from Nicholas (2007), and Walpole and Goodwin (2002). The sample size drawn from each village was proportionated to the size of their respective populations. The following figure shows how the sampling procedure was carried out.



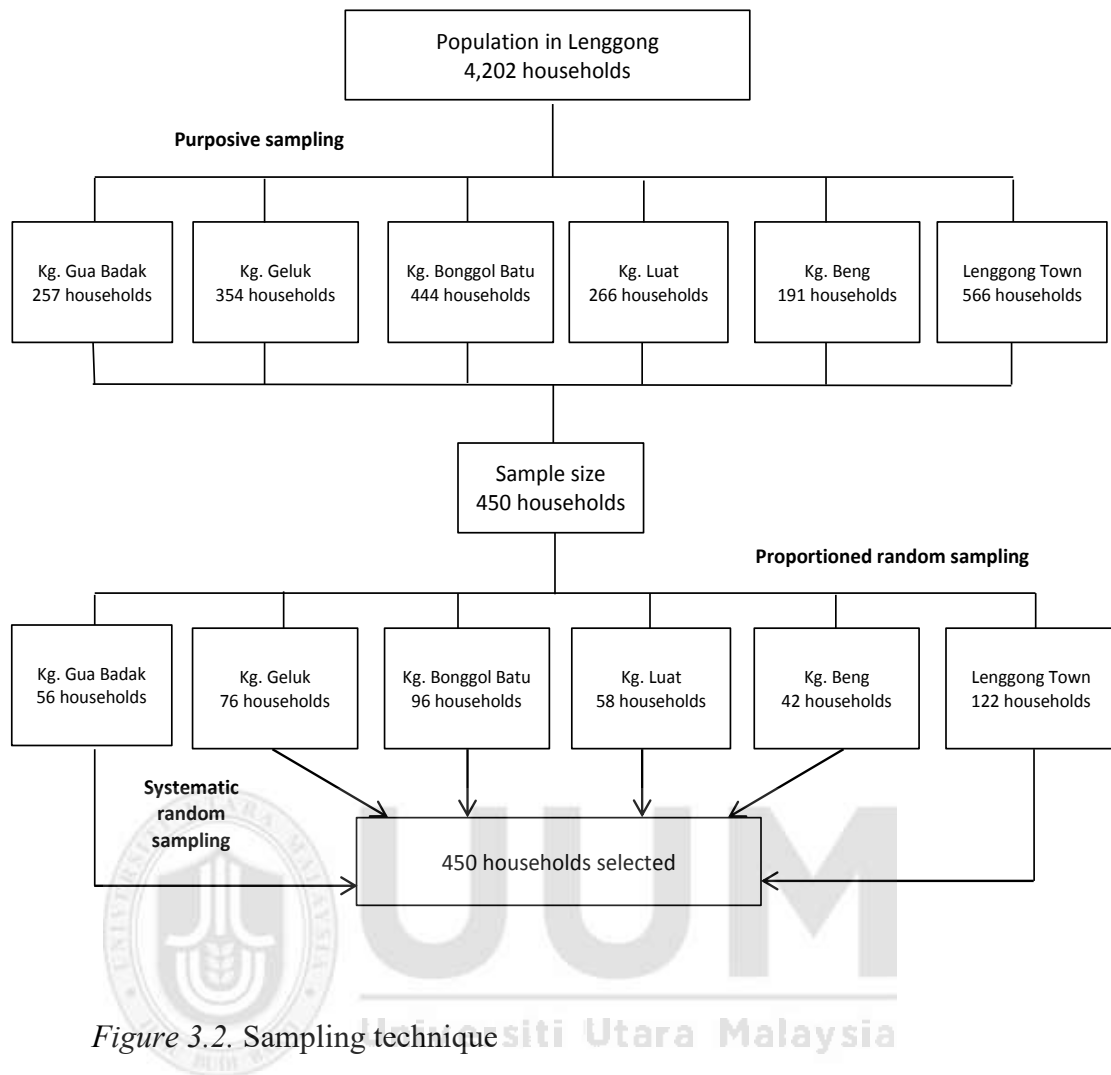


Figure 3.2. Sampling technique

Such sampling method has been applied in previous studies in the area of tourism development and resource conservation (Kayat et al., 2013; Nicholas et al. 2009; Walpole & Goodwin, 2002). For details, the following table exhibits the population and sampling size for each village.

Table 3.8

*Proportioned Random Sampling Table*

No	Village	Mukim	Household number	Sample size
1	Gua Badak	Lenggong	257	56
2	Gelok	Lenggong	354	76
3	Banggol Batu	Temelong	444	96
4	Luat	Temelong	266	58
5	Beng	Durian Pipit	191	42
6	Lenggong Town	Lenggong	566	122
TOTAL			2,078	450

The total sample size of residents was determined based on Krejcie and Morgan (1970) as found in Sekaran (2000). The statistically appropriate sample size (with 95% confidence) for respondents in this current study is 322 households from a total population of 2,078 households in the selected 5 villages and a town. However, to increase accuracy of this sampling method, the number of sample was enlarged to 450 from the suggested 322 households. Naturally, bigger sample size is more representative of population's data tabulation compared to small sample size (Sekaran, 2000).

### 3.7 Data Collection

The data were collected using self-administered questionnaire distributed to the predetermined number of respondents according to each village and town as shown in the Table 3.8 above. Each of the questionnaires was attached with a cover letter from the researcher together with detailed written instructions (Appendix A and Appendix B). Trained enumerators assisted the researcher in eliciting the responses from residents. Individuals of at least 21 years old were interviewed representing each selected household based on the statistic of household acquired from Lenggong District Council. The data collection exercises were carried out between July and October 2013.

### **3.8 Data Analysis**

This current study used statistical analyses that consists of descriptive statistics, factor analysis, multiple-regression analysis, and mediating analysis. In order to perform such tasks, Statistical Package for Social Science (SPSS) version 21 was employed. These data analysis will be explained further below.

#### **3.8.1 Descriptive Statistics**

To get a feel for the data, descriptive statistics such as frequency distribution, central tendency (mean), variance, and standard deviation were estimated. These analyses give preliminary ideas of how good the scales are, how well the coding, and data entering have been done. Another reasons for this basic analysis is to prepare data for factor analysis, obtaining the Cronbach's alpha and so forth.

#### **3.8.2 Factor Analysis**

Factor analysis is a multivariate technique widely used in various fields especially in psychology, education, health, and other social sciences studies. This analytical technique was developed from the work of Pearson and Spearman in the early 1900s. According to Williams, Brown and Onsmann (2012) factor analysis has several functions as follows:

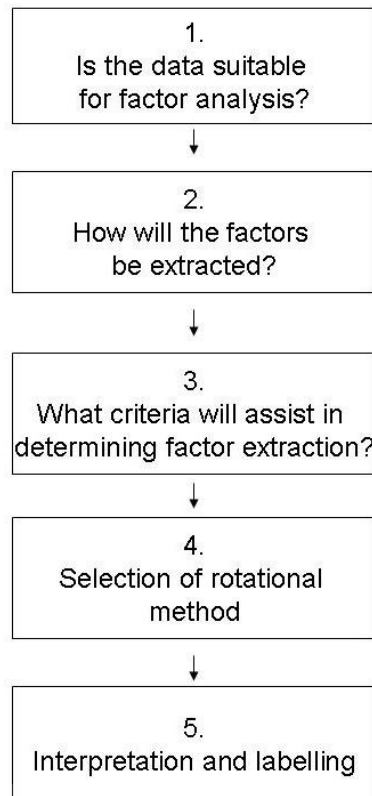
Firstly, factor analysis reduces a large number of variables into a smaller set of variables (also referred to as factors). Secondly, it establishes underlying dimensions between measured variables and latent constructs, thereby allowing the formation and refinement of theory. Thirdly, it provides constructs validity evidence of self-reporting scales (p. 2).

In addition to that, Nunnally (1978) further described factor analysis as a method that tackles validity issues and has since become the pre-requisite of the measurement in psychological constructs. There are two types of factor analysis; exploratory and

confirmatory. Exploratory factor analysis is used when researcher has no expectations about the number and nature of variables that represent a construct. This enables researcher to identify the dimensions from a large set of items. Confirmatory factor analysis on the other hand, is more suitable when dealing with theory and model testing, or commonly used in structural equation modelling (SEM). For confirmatory factor analysis, researcher must have prior knowledge about the number and structure of variables and its associated dimensions. In this study, exploratory factor analysis was chosen as it serves the following objectives:

- a. To reduce the number of variables (or items) within a construct. This can be done using either one of the following methods, by calculating the overall score that represent the entire set of variables or by selecting the most representative variables within a component or dimension and eliminate other redundant variables.
- b. To detect structure in the relationship between variables, that is to classify variables under a common dimension. This means that a number of variables that share something in common can be grouped under one dimension. This something in common refers to the similarity in the patterns of data variations. This dimension represents the latent variable.

In order to apply exploratory factor analysis, 5-step protocol must be followed as depicted in the figure below:



*Figure 3.3. The 5-step exploratory factor analysis protocols. Source: Williams et al. (2012)*

#### Step 1: Suitability of data for factor analysis

In term of sample size, Tabachnik and Fidell (2007) recommended that at least 300 cases are needed to properly run factor analysis. Meanwhile Hair, Black, Babin and Anderson (2010) pointed out that the sample size should be at least 100. However, a rule of thumbs by Comrey and Lee (1973) indicated that: 100 as poor, 200 as fair, 300 as good, 500 as very good, and above 1,000 is excellent. Another way of determining the appropriate sample size for factor analysis is by using  $N:p$  ratio, where  $N$  refers to the number of cases and  $p$  refers to number of items (Hair et al., 2010). The following  $N:p$  ratios are acceptable which range anywhere from 6:1, 10:1, 15:1 to 20:1. In the case of this study, the  $N:p$  ratio was 10:1 (450 cases against 44 items) which is well above the minimum requirement.

Besides sample size, factorability of correlation matrix must also be checked before factor analysis begins. Tabachnik and Fidell (2007) recommended that the correlation matrix coefficients (also known as factorability of R) should be at least 0.30. If there is no correlation above 0.30, the application of factor analysis may not be suitable.

Kaiser-Mayer-Olkin (KMO) Measure of Sampling Adequacy is another procedure needed to ensure whether the data is suitable for factor analysis, especially when the sample to variables ratio is less than 5:1. The KMO index ranges from 0 to 1, where 0.50 and above is considered appropriate for factor analysis (Kumar et al., 2013). Bartlett's Test of Sphericity needs to be significant at  $p < 0.05$  in order to warrant factor analysis.

#### Step 2: Factors extraction methods

The purpose of extraction is to rearrange groups of items according to their factor loadings thus making it easier to interpret. There are a number of factor extraction methods namely principle component analysis (PCA), principle axis factoring (PAF), image factoring, maximum likelihood, alpha factoring, and canonical (Hair et al., 2010). From the list above, PCA and PAF are the most widely used in factor analysis. The difference between PCA and PAF is small and insignificant. However, PCA is more appropriate in providing initial solution for exploratory factor analysis and when there is no model existed.

### Step 3: Criteria in determining the factor extraction

There are a several techniques that can be used in determining factor extraction. The most commonly used are Kaiser's criteria (eigenvalue  $> 1$ ), scree test, cumulative percent of variance extracted and parallel analysis (Williams et al., 2012).

### Step 4: Selection of rotational methods

According to Williams et al. (2012, p. 9), "rotation maximises high item loadings and minimises low item loadings, therefore producing a more interpretable and simplified solution." The most common rotation techniques are orthogonal rotation and oblique rotation. Each of the techniques can be broken further into: orthogonal varimax/quartimax, and oblique oblimin/promax. The orthogonal varimax rotation developed by Thompson (2004) becomes the most common technique as it is able to separate factors that are uncorrelated.

### Step 5: Interpretation

All the factors that have been extracted should be named according to its theme. As a rule of thumb, at least a minimum of 2 to 3 items need to load on a factor in order to have an appropriate interpretation (Williams et al., 2012).

### **3.8.3 Multiple Regression Analysis**

Regression analysis is used to measure the predictive power of an independent variable towards a dependent variable. More specifically, multiple regression analysis "is a statistical technique that can be used to analyse the relationship between a single dependent variable and several independent variables" (Hair et al., 2010, p. 161). In other words, it is about how a liner combination of independent variables statistically

predicts the dependent variable. In the case of this current study, the relationships examined were between community attachment, community involvement, perceived local economic condition, trust in government institutions, perceptions of WHS designation, and support for sustainable tourism development. In summary, the regression model can be represented using the following formula:

$$\begin{array}{lcl} \text{Predicted changes} & = & \text{Intercept} + \text{regression coefficient } (b_1) \times \\ \text{in dependent} & & \text{dependent variable } (V_1) \\ \text{variable } (\hat{Y}) & & \end{array} \quad (3.1)$$

$$\hat{Y} = b_0 + b_1 V_1$$

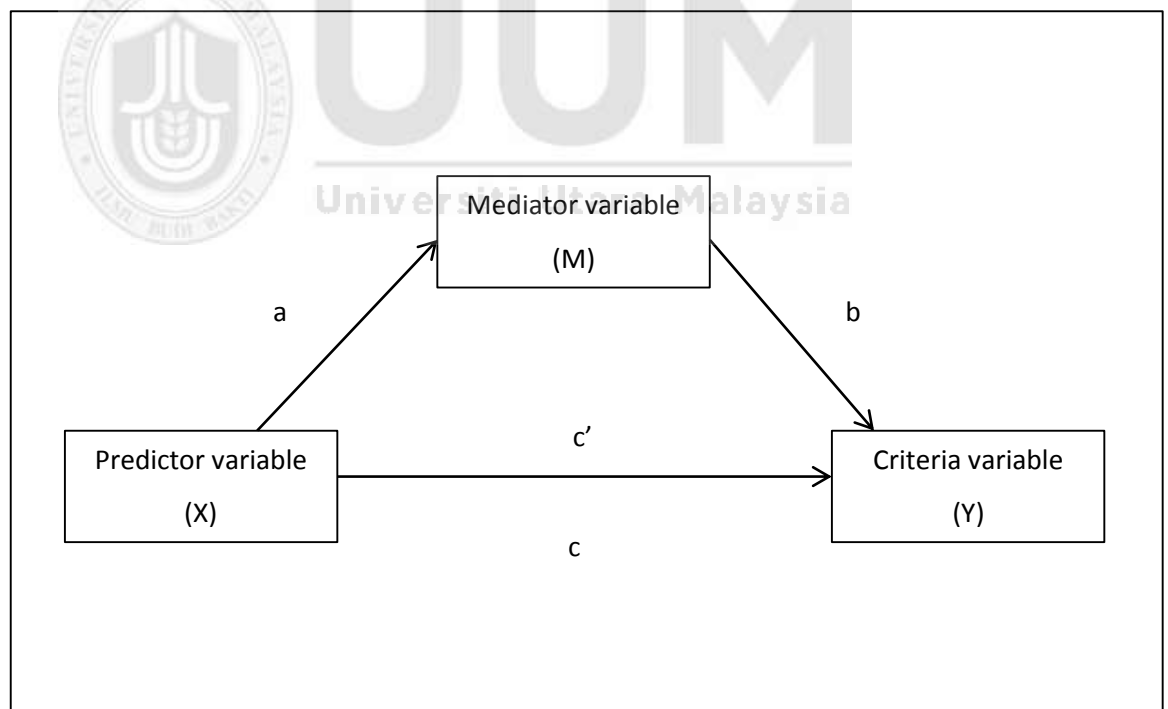
In order to perform multiple regression analysis, several assumptions must be met. Firstly, normality test must be conducted to ensure the sample data are normally distributed. Secondly, the linearity of phenomenon between variables must be observed. This is to ensure no obvious U-shaped or other curvilinear relationship presence that may disrupt the regression analysis. Thirdly, the data must be homoscedastic. Homoscedasticity can be examined by plotting the straight line on the scatter plot of predictor variable and dependent variable. Fourthly, the presence of multicollinearity must be avoided. The small tolerance value of below 0.10 and the VIF higher than 10 indicates the presence of multicollinearity (Pallant, 2007). The presence of multicollinearity indicates that the correlation amongst independent variables is too high (0.9 and above), thus reducing the chances of identifying the effect of individual independent variable on dependent variable (Hair et al., 2010). Finally, there must be some correlations between independent variables and dependent variable. However,



according to Talib (2015), the correlation must not be too high (preferably not above 0.7) in order to establish a good multiple regression model.

### 3.8.4 Statistical Treatment for Mediating Variable

A mediator variable refers to an active organism intervenes between stimulus (predictor) and response (outcome variable). To test the mediation effect, a four step regression analysis procedure developed by Barron and Kenny (1986) was employed. The procedure used three regression equations to establish a mediation relationship between a predictor variable and an outcome variable. The model of the mediation relationship is shown in Figure 3.4 below. Accordingly, Barron and Kenny (1986) discussed four steps in establishing mediation:



*Figure 3.4. Mediation model by Barron and Kenny (1986)*

Step 1: Show the significant correlation between initial variables (X) with the outcome (Y). This is indicated by path c.

Step 2: Show the significant correlation between initial variables (X) and mediator (M). Use M as the criterion variable in the regression equation and X as a predictor (estimate and test path a).

Step 3: Show the significant correlation between both predictor (X) and mediator (M) towards criterion variable (Y). Use Y as the criterion variable in a regression equation, and X and M as predictors (estimate and test path b).

Step 4: To establish that variable M completely mediates the X-Y relationship, the effect of X on Y controlling for M (path c') should be zero. However, it is very rare to have a zero order correlation between X-Y as a result of mediation especially in psychological behavioural studies. In fact, a full mediation can be said to occur when path c' is no longer significant once the mediating factor is included. In addition to that, a partial mediation is said to occur even if path c' is still significant provided there is a significant reduction in unstandardized coefficients ( $\beta$ ) value.

On top of the above mediation procedure, a Sobel mediation test can also be used to confirm the mediating roles. The existing Sobel test calculator can greatly help in the analytical process. This calculator requires certain numbers including unstandardized regression coefficient and standard error to be inputted for calculation. The Sobel test calculator is easily found in many websites such as [www.quantpsy.org](http://www.quantpsy.org) developed by Kristopher J. Preacher (Vanderbilt University) and Geoffrey J. Leonardelli (University of Toronto). The Sobel formula is also used in other statistical programmes including logistic regression and structural equation modelling. The formula for Sobel test is as follow:

$$z = \frac{ab}{\sqrt{(b^2SE_a^2) + (a^2SE_b^2)}} \quad (3.2)$$

Where  $a$  is the regression coefficient for the relationship between the independent variable and the mediator,  $b$  is the regression coefficient for the relationship between the mediator and the dependent variable,  $SE_a$  is the standard error of the relationship between the independent variable and the mediator, and  $SE_b$  is the standard error of the relationship between the mediator variable and the dependent variable.

### 3.8.5 Validity and Reliability

This exercise involves content validity, face validity and reliability test. Content validity is used to assess the suitability of measurement items in representing the operational definition of each variable. In this study, the content validity was primarily evaluated by referring to the instrument developed and employed in past researches in related area of investigation (Aas et al., 2005; Bank, 2010; Besculides et al., 2002; Gursoy et al., 2002; Gursoy & Rutherford, 2004; Karanth et al., 2008; Maikhuri et al., 2001; Nicholas et al., 2009; Nunkoo et al., 2012). In addition, experts were also involved in refining the instruments, which include two academic staff from University Sains Malaysia and an officer from Lenggong District Council in determining the suitability of the items in the local context. The selection of the above experts in assessing the content validity was due to their extensive involvement in the research and administration of the Lenggong Valley WHS. The content validity was then followed by face validity by administering the measurement items to a small group of respondents representing a total of 10 local residents from one of the villages (i.e. Kg Beng). The purpose of face validity was

to ensure whether or not the questions are easily understood and also to avoid any potential misinterpretation. Following face validity exercises, minor adjustments have been made on several questions as depicted in the following tables. However, the adjustments only involved three constructs, i.e. community attachment, perceptions towards WHS, and support for sustainable tourism development. Meanwhile, the other constructs did not require any adjustment.

Table 3.9

*Community Attachment Items Face Validity (Question Number in Bracket)*

<b>Items before validation</b>	<b>Items after validation</b>
I am very attached to this community (1) <i>Saya sangat rapat dengan komuniti Lenggong</i>	I am very attached to this community (1) <i>Saya sangat akrab dengan penduduk di Lenggong</i>
The friendships and associations that I have with other people in this community mean a lot to me (3) <i>Jaringan persahabatan dengan komuniti di Lenggong amat bermakna buat saya</i>	The friendships and associations that I have with other people in this community mean a lot to me (3) <i>Hubungan persahabatan dengan penduduk di Lenggong amat bermakna buat saya</i>
If the people in the community were planning something, I'd think of it as something we were doing rather than they were doing (4) <i>Jika komuniti di sini merancang untuk melakukan sesuatu, saya rasa ianya merupakan tugas semua orang di sini dan bukan tugas orang lain</i>	If the people in the community were planning something, I'd think of it as something we were doing rather than they were doing (4) <i>Saya rasa kerja-kerja kemasyarakatan yang dilaksanakan di Lenggong merupakan sebahagian daripada tugas saya</i>

Table 3.9 shows that three instrument items from community attachment were adjusted after discussion with local people to make it clearer and to avoid misunderstanding. The adjusted questions were in the Malay version, whereas the English version remains the same.

Table 3.10

*Perceptions towards WHS Designation Items Face Validaty (Question Number in Bracket)*

<b>Items before validation</b>	<b>Items after validation</b>
It is important to protect the World Heritage Site for the survival of various archaeological artefacts (2) <i>Adalah penting untuk menjaga tapak warisan dunie untuk keselamatan artifak arkeologi yang terdapat di dalamnya</i>	It is important to protect the World Heritage Site for the survival of various archaeological artefacts (2) <i>Pemuliharaan tapak warisan dunia penting demi melindungi bahan sejarah yang terdapat di dalamnya</i>

For the above construct as shown in Table 3.10, only one items need to be rephrased after face validation exercise, in particular question number 2.

Table 3.11

*Support for Sustainable Tourism Development Items Face Validity (Question Number in Bracket)*

<b>Items before validation</b>	<b>Items after validation</b>
Development of community-based tourism initiatives (1) <i>Inisiatif pembangunan pelancongan berdasarkan komuniti tempatan</i>	Development of community-based tourism initiatives (1) <i>Usaha pembangunan pelancongan berteraskan masyarakat setempat</i>
Promotion of heritage education and conservation (4) <i>Promosi pendidikan dan pemuliharaan warisan</i>	Promotion of heritage education and conservation (4) <i>Usaha ke arah program pendidikan dan pemuliharaan warisan</i>

Under the support for sustainable tourism development, two items in Malays version were adjusted in order to ensure the meaning can be easily understood by the local respondents as depicted in Table 3.11. After the above processes have been satisfied, a pilot study involving 30 local residents was then administered. The pilot study is to ensure once again both the validity and reliability of survey instruments before proceeding with the actual data collection (Sekaran, 2000). The results of pilot study is depicted in Table 3.12 below.

In the next stage, reliability test was carried out to assess all the items in the under study constructs in terms of their test-retest reliability and internal consistency. According to Sekaran (2000), the test-retest reliability assessment is conducted by administering the measurement scale on the same people twice at different time one after another. However, this approach is not popular as the respondents may no longer have the interest in answering the same questionnaire twice, thus rendering it ineffective. Therefore, the most appropriate and widely accepted method for reliability test is the internal consistency test, namely Cronbach's coefficient alpha (Sekaran, 2000). Cronbach's alpha test measure the degree of inter-correlations among test items that measure a construct (Pallant, 2007). Cronbach's alpha will generally increases as the inter-correlations among test items increase. Alpha coefficient has the value ranging from 0 to 1. A value closer to 1 is considered as very reliable. According to Hair et al. (2010), the minimum acceptable value of Cronbach' alpha is between 0.6 and 0.7 for social science research.

Based on the preliminary analysis of the pilot study, the Cronbach's alpha for reliability test are as follow:

Table 3.12

*Reliability Test from Pilot Study*

Variables tested	Cronbach's Alpha Value	No. of items
Community attachment	0.925	11
Community involvement	0.969	4
Perceived local economic condition	0.887	4
Trust in government institutions	0.859	3
Perception toward WHS designation:		
Benefits	0.887	9
Costs	0.950	5
Support for sustainable tourism	0.829	8

All the displayed Cronbach's alpha are above the minimum acceptable value set by Hair et al. (2010), at 0.6 for social science research. In overall, the value scores indicate that the instrument has an acceptable level of internal consistency for items measuring the same construct.

### **3.9 Summary**

This chapter provided a description of the research methods employed in this study. The quantitative methods approach was implemented due to its suitability to the nature of inquiries of the current study. In addition to that, quantitative approach can represent overall opinion of respondents which can then easily be generalised and replicated in other similar setting elsewhere.



## **CHAPTER FOUR**

### **FINDINGS**

#### **4.1 Introduction**

This chapter presents the results of data analysis and the findings of the study. It covers profiles of respondents, data screening, factor analysis, validity and reliability, regression analysis, mediating analyses, and hypothesis testing. At the end of the chapter, some discussions were made on the main findings of the statistical results.

#### **4.2 Profile of Respondents**

A total of 450 questionnaires were personally distributed to household's representatives over five selected villages and a town within the Lenggong District. The response rate was almost 100% as the distribution of questionnaires were carried out personally by trained enumerators from house to house based on systematic random sampling approach. In total there were 450 questionnaires collected. However, 49 cases were eliminated after data screening due to incomplete responses and the presence of outliers. Hence, only a total of 401 cases were included for further analysis.

The sample consists of 51.7% female and 48.3% male respondents. In terms of age, the majority of respondent were between 21 - 30 years olds representing 38.0 %, and followed by the age group of 31 – 40 years old representing 21.7%. As Lenggong is situated in rural area, the dominance ethnic encompasses Malay (94.5%), Chinese



(2.8%), Indian (1.2%), and Thais (1.5%) respectively. The majority of respondents were also born in Lenggong (77.0%).

Slightly more than half of the respondents finished secondary school (63.5%). The rest of respondents were recorded as first degree graduates (15.2%), primary school leavers (13.5%), post-degree graduates (1.5%), and others qualifications (0.3%). About 6.0% of respondents however, did not go to school at all. In terms of occupations, the majority were working in agriculture sector (18.5%), government servants (18.4%), business retailers (8.0%), homestay operators (4.0 %) and the rest as depicted in the Table 4.1. However, the largest percentage of respondents was recorded as housewife (24.2%). This large percentage of housewife recorded in the data was probably due to the absence of male head house which were out working during the data collection exercises.

The majority of residents (83.0%) have also visited the Lenggong Archaeological Museum, which is also acting as the WHS visitor centre. This may indicate their interests and knowledge of Lenggong Valley WHS.

Table 4.1

*The Demographic Profiles of Respondents (n=401)*

Parameter		Frequency	Valid Percentage
Gender	Male	194	48.3
	Female	207	51.7
Age	21 – 30	152	38.0
	31 – 40	87	21.7
	41 – 50	76	19.0
	51 – 60	52	13.0
	Above 60	34	8.3
Ethnicity	Malay	379	94.5
	Chinese	11	2.8
	Indian	5	1.2
	Siamese	6	1.5
Education level	Did not go to school	24	6.0
	Primary school	54	13.5
	Secondary school	255	63.5
	First degree	61	15.2
	Post-graduate	6	1.5
	Others	1	0.3
Place of birth	Lenggong	307	77.0
	Other than Lenggong	94	23.0
Occupations	Agriculture	74	18.5
	Fishery	4	1.0
	Quarry	1	0.3
	Logging	1	0.3
	Guano collector	1	0.3
	Government	74	18.4
	Restaurant	13	3.2
	Homestay	16	4.0
	Local cottage industry	12	3.0
	Hotel	4	1.0
	Archaeological museum	5	1.3
	Grocery stores	32	8.0
	Housewife	97	24.2
	Student	49	12.2
	Others	18	4.5

**4.3 Data Screening**

Data screening exercise was conducted before further analysis of data can proceed. This is to ensure the accuracy of the data is ascertained. Besides that, data screening is also useful in dealing with missing values, detecting and treating of univariate and multivariate outliers, and assessing normality, linearity, and homoscedasticity as recommended by Tabachnick and Fidell (2007).

#### **4.3.1 Accuracy of Data Input**

The accuracy of the data input was assessed by examining the results of means and standards deviations. It was found that there is no out of range values based on close inspection of the data set. All responses were within 7-point Likert scale for the seven under study variables before further analysis can take place. For the demographic profiles, there was only one outlier found relating to age group due to incorrect data entry. This was then rectified.

#### **4.3.2 Missing Data**

From 401 questionnaires analysed, there were 41 out of a total 17,644 data points (or 0.23%) randomly missing values. This is considered as small percentage of missing data that requires no major concern for the study. There are several approaches in the treatment of missing data, however, the most appropriate and easiest way is the 'means substitution' when the missing values is small, i.e. less than 5% following Tabachnick and Fidell (2007). In this case, the missing values were replaced by the mean values of respective items. The following table shows the percentage of missing data for each variable.

Table 4.2

*Total and Percentage of Missing Data*

<b>Variables</b>	<b>Number of missing values</b>	<b>No items in variables</b>	<b>Total data point (N x no. of items)</b>	<b>Percentage missing data point</b>
Community attachment	15	11	4,411	0.34
Community involvement	0	4	1,604	0.0
Local economic condition	3	4	1,604	0.19
Trust in government institutions	3	3	1,203	0.25
Perceptions towards WHS designation	11	14	5,614	0.20
Support for sustainable tourism development	9	8	3,208	0.28
<b>TOTAL</b>	<b>41</b>	<b>44</b>	<b>17,644</b>	<b>0.23</b>

From the table above, it was found that the highest missing data occurred in community attachment (15 data points), perceptions towards WHS designation (11 data points), and support for sustainable tourism development (9 data points). Within community attachment items, the most missing data occurred on items ‘I feel that I belong to this community’ (3 data points) and ‘the friendships and associations that I have with other people in this community mean a lot to me’ (5 data points). Meanwhile for perceptions towards WHS designation, the most missing data occurred on item ‘tourism development potentials’ (5 data points). Finally, in term of support for sustainable tourism development, the most missing data was recorded on item ‘I don’t care about

the development activities that jeopardize the integrity of WHS' (3 data points). The occurrence of missing data on the above items cannot be answered by researcher accurately. However, it was assumed that some respondents might unintentionally leaving them unanswered.

#### **4.3.3 Data Recoding**

The negative statements in the questionnaires were also recorded before further multivariate analyses can be applied. In this study, two variables were involved with this data recoding procedure, i.e. community attachment, and support for sustainable tourism development. Within community attachment, item no. 11 was recorded, meanwhile in support for sustainable tourism development, only one item was recoded, which is item no 8.

In the special case of perceived local economic conditions, the inputs were re-coded so that higher score become lower score represents poor economic condition and vice verse (e.g. 7 recoded into 1; 6 recoded into 2; and so on). This practice has been implemented in previous studies (Gursoy & Rutherford, 2004; Gursoy et al., 2009). For example, when residents strongly agreed that there is the 'need for more jobs to stop young people from moving away', thus it means that the local economic is in a needy state.

#### **4.3.4 Univariate and Multivariate Outliers**

The univariate outliers can be observed by looking at the z-scores. Tabachnick and Fidell (2007) stressed that z-scores should be less than  $\pm 3.29$  when the sample size is bigger than 80. Accordingly, using outlier detection method known as standardized

means has identified a total of thirty five outliers (z-scores above  $\pm 3.29$ ). As a result of that, a total of thirty five cases were deleted. The cases involved were 3, 47, 50, 51, 56, 78, 81, 91, 98, 142, 146, 209, 220, 223, 227, 230, 238, 281, 287, 294, 309, 313, 314, 320, 323, 325, 327, 350, 351, 377, 380, 381, 384, 394, and 395. Besides the above method, another way of detecting univariate outlier is by observing the box plot (Appendix C).

In addition to the above, multivariate outliers were then detected using Mahalanobis distance analysis. A total of eleven cases were deleted because their Mahalanobis distance's test of significance were below  $p < .001$ . Cases deleted were case number 16, 94, 174, 196, 235, 368, 379, 397, 405, 406, and 417. Upon deletion, the data was screened once more time to check the presence of multivariate outliers. Thus, under standardized means and Mahalanobis distance tests, a total of forty six cases were deleted. In addition to that, a total of three other cases were also deleted due to incomplete responses resulting only 401 cases used for further analysis. In conclusion, both univariate and multivariate outliers represent only 10.2 percentages of the total responses.

#### **4.3.5 Normality Test**

Normality test was carried out to check whether or not the data set is well-modelled by normal distribution. It was done by examining the data set for its skewness and kurtosis as recommended by Ferguson and Cox (1993). Skewness is a numerical value that represents the distribution of data whether it is normal, positively skewed (skewed to the right) or negatively skewed (skewed to the left). The skewness of normal distribution is zero. Kurtosis on the other hand, is a value of the dispersion of data

whether it is platykurtic or leptokurtic. Platykurtic is the data set with large standard deviation, and leptokurtic is data set with small standard deviation.

Normal distribution is crucial for further analyses the likes of factor analysis and multiple regressions (Hair et al., 2010; Pallant, 2007). The perfectly normal distribution is zero, which is impossible to achieve in social science researches. However, according to Coakes and Steed (2003), some degree of skewness and kurtosis is acceptable as long as the value is between  $\pm 3.0$ . Others like Hu, Bentler and Kano (1992) even stated that deviations in the range of  $\pm 7.0$  would not affect the analysis significantly when the sample size is larger than 200.

A closer examination found that one item has exceeded the acceptable skewness values of  $\pm 3.0$ , meanwhile twelve items exceeded the acceptable kurtosis of  $\pm 3.0$ . This accounted for only 27% from the total of forty four items. However, these affected items were small, thus will not affect the entire data level of normality. Assumption of normality is the pre-requisite for multivariate analysis.

Table 4.3

*Data Variable Adversely Affected by Skewness and Kurtosis Outside  $\pm 3.0$*

Variables	Item no.	Skewness		Kurtosis	
		Statistics	Std error	Statistics	Std error
Perceived local economic condition	1	2.299	0.122	<b>5.167</b>	0.243
	2	1.896	0.122	<b>3.262</b>	0.243
	3	1.789	0.122	<b>3.363</b>	0.243
	4	2.442	0.122	<b>6.708</b>	0.243
Perceptions of WHS designation	1	-1.946	0.122	<b>5.637</b>	0.243
	9	<b>-3.592</b>	0.122	<b>18.547</b>	0.243
	11	2.879	0.122	<b>10.932</b>	0.243
	12	2.007	0.122	<b>4.975</b>	0.243
	13	1.768	0.122	<b>4.160</b>	0.243
	14	2.179	0.122	<b>7.226</b>	0.243
Support for tourism	6	-2.694	0.122	<b>9.850</b>	0.243
	7	-2.289	0.122	<b>5.685</b>	0.243

From the table above, it was found that the highest value for skewness is for the item no. 9 'recognition as WHS' (-3.592) which is under perceptions towards WHS. Meanwhile, for the kurtosis, the highest value was recorded for the item no. 6 'the designation of Lenggong Valley as UNESCO's WHS' (9.850) under support for sustainable tourism; and item no. 9 'recognition as WHS' (18.547) and item no. 11 'WHS has created problem for my life' (10.932) both under perceptions towards WHS. For further details, the normality tabulation graph is also presented in Appendix D.

#### **4.4 Exploratory Factor Analysis**

The following sections discuss the findings of the factor analysis carried out for the understudy variables: community attachment, community involvement, perceived local economic condition, trust in government, perceptions towards WHS, and support for sustainable tourism development. Exploratory factor analysis was also used to examine the factorial validity of the instruments employed in this study.

##### **4.4.1 Factor Analysis Results of Community Attachment**

After the principal component analysis completed, three items from community attachment were deleted due to low factor loading below 0.45. The items deleted represent questionnaire's questions number 8, 10 and 11. Such omission has increased the Kaiser-Meyer-Olkin values. The Sampling adequacy test of The Kaiser-Meyer-Olkin produced a value of 0.898, which exceeded the minimum value of 0.6. A correlation matrix analysis showed that all the inter-items coefficient correlations were above 0.3, which indicated the data was appropriate for factor analysis. The Bartlett's test of sphericity reached statistical significance ( $p < 0.05$ ), supporting the factorability of the correlation matrix. The principle component analysis revealed the presence of only



one factor which has eigenvalues exceeding 1, explaining 59.5 percent of the total variance. A review of scree plot revealed a clear break after the one component. Based on Catell's (1966) scree test, only one component was retained for further investigation.

The details of factor loading are presented in the Table 4.4 below:

Table 4.4

*Factor Loading for Community Attachment (Original Items Number in the Bracket)*

<b>Variables / Items</b>	<b>Factor loadings</b>
I am very attached to this community (1)	.784
I feel like I belong to this community (2)	.781
The friendships and associations that I have with other people in this community mean a lot to me (3)	.771
If the people in the community were planning something, I'd think of it as something we were doing rather than they were doing (4)	.797
If I needed advice about something, I could go to someone in this community (5)	.824
I think I agree with most people in this community about what is important in life (6)	.740
I feel loyal to the people in this community (7)	.746
I'd like to think of myself as similar to the people who live in this community (9)	.721
Eigenvalue	<b>4.758</b>
% of explained variance	<b>59.5</b>

The results of this factor analysis together with its tests are summarized in the following table.

Table 4.5

*Summary of Factor Analysis Result for Community Attachment*

No.	Factorability assessment	Results	Value required for factor analysis
1	KMO measure of sampling adequacy	0.898	Min value is 0.6
2	Bartlett's test of Sphericity Approx. Chi-Square df significant	1796.483 28 <0.0001	P <0.05
3	Strength of inter-correlation among items	All values greater than 0.3	Correlation coefficient > 0.3
No.	Methods	Results	Remarks
1	Kaiser's Criteria	One factor exceeded eigenvalue of 1	Minimum eigenvalue of 1 is acceptable to retain the factors
2	Catell's scree test	One factor retained	Only one factors was above the value of 1 and above elbow of the curve

A review of scree plot revealed a clear break after the one component. Using Catell's (1966) scree test, it was decided to retain only one component for further investigation (Figure 4.1).

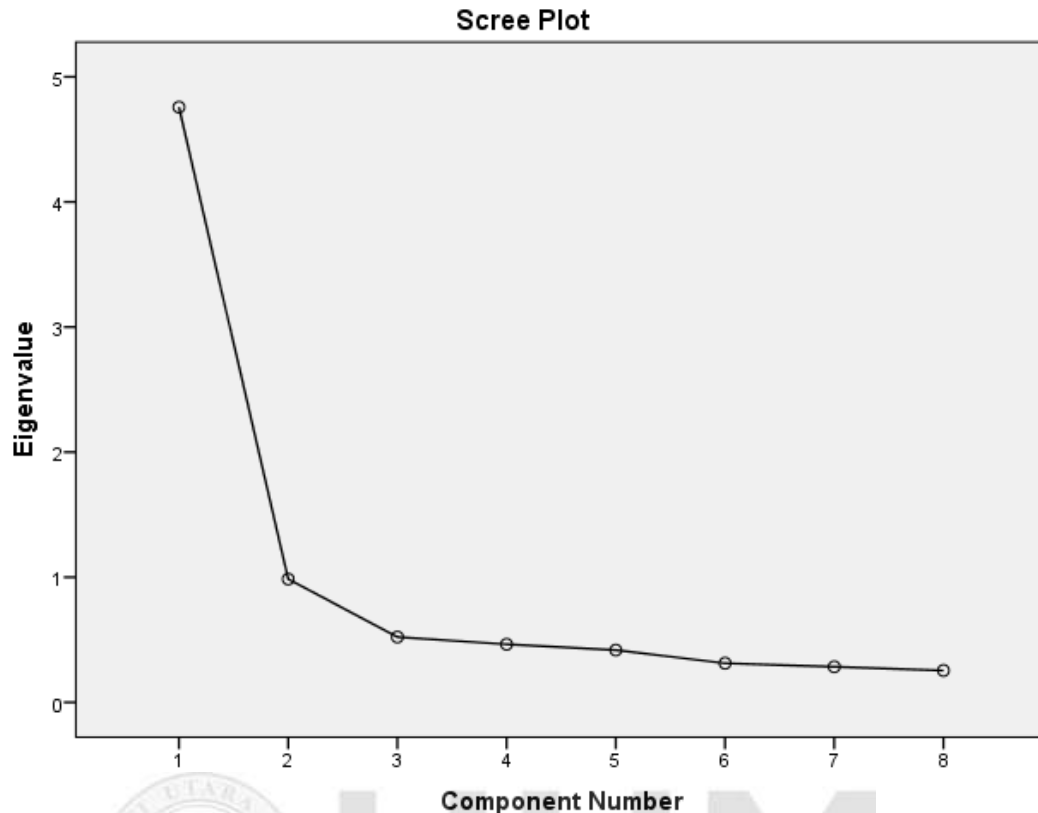


Figure 4.1. Scree plot for community attachment

#### 4.4.2 Factor Analysis Results of Community Involvement

All four items from community involvement were retained as their factor loadings were above 0.45 based on principal component analysis. The sampling adequacy test of The Kaiser-Meyer-Olkin yielded a value of 0.790, which exceeded the minimum value of 0.6. A correlation matrix analysis indicated that all the inter-items coefficient correlations were also above 0.3, making it appropriate for factor analysis. The Bartlett's test of sphericity reached statistical significance ( $p < 0.05$ ), supporting the factorability of the correlation matrix. The principle component analysis revealed the presence of only one factor which has eigenvalues exceeding 1, explaining 75.8 percent of the total variance. A review of scree plot revealed a clear break after the one component Catell's (1966). The details of factor loading are presented in the Table 4.6 below:

Table 4.6

*Factor Loading for Community Involvement (Original Items Number in the Bracket)*

<b>Variables / Items</b>	<b>Factor loadings</b>
My involvement with Lenggong Valley World Heritage Site (1)	.872
My involvement in the decision-making about the local development (2)	.924
My involvement in a committee that discuss the development and future of Lenggong as a tourism destination (3)	.878
My involvement in occupations related to local tourism services (4)	.804
Eigenvalue	<b>3.030</b>
% of explained variance	<b>75.8</b>

The results of this factor analysis together with its tests are summarized in the following table.

Table 4.7

*Summary of Factor Analysis Result for Community Involvement*

<b>No.</b>	<b>Factorability assessment</b>	<b>Results</b>	<b>Value required for factor analysis</b>
1	KMO measure of sampling adequacy	0.790	Min value is 0.6
2	Bartlett's test of Sphericity Approx. Chi-Square df significant	1015.335 6 <0.0001	P <0.05
3	Strength of inter-correlation among items	All values greater than 0.3	Correlation coefficient > 0.3
<b>No.</b>	<b>Methods</b>	<b>Results</b>	<b>Remarks</b>
1	Kaiser's Criteria	One factor exceeded eigenvalue of 1	Minimum eigenvalue of 1 is acceptable to retain the factors
2	Catell's scree test	One factor retained	Only one factors was above the value of 1 and above elbow of the curve

A review of scree plot indicated a clear break after the one component (Figure 4.2).

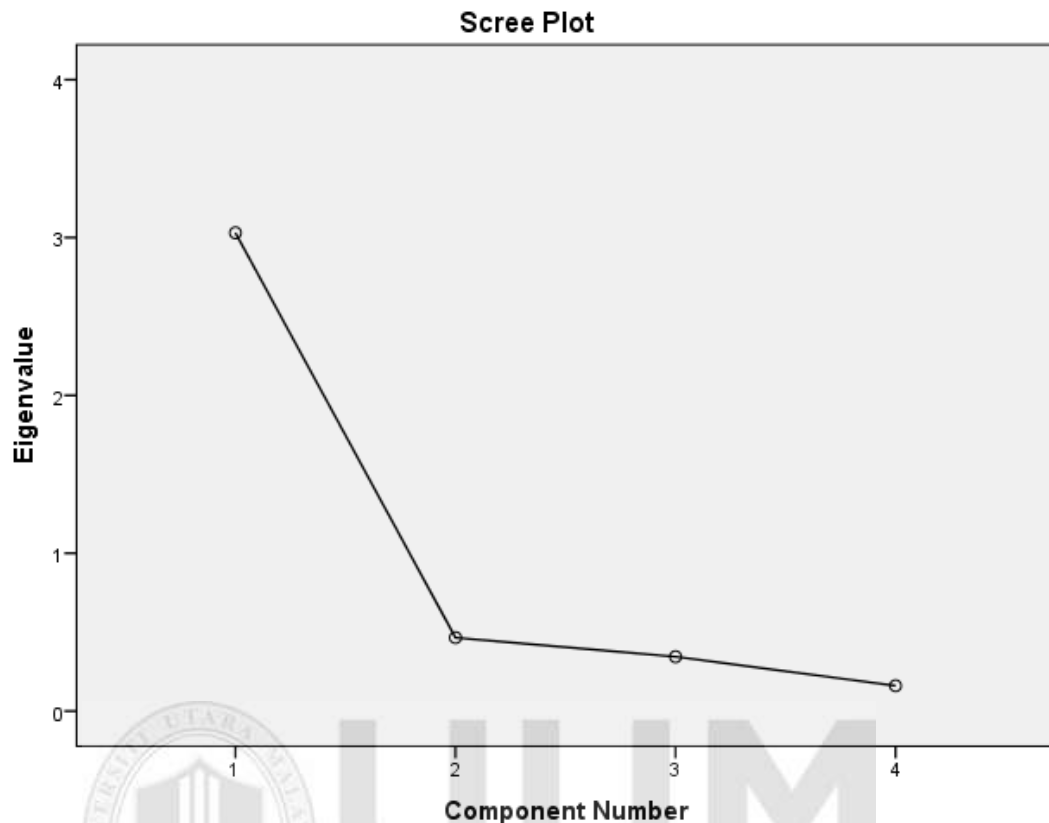


Figure 4.2. Scree plot for community involvement

#### 4.4.3 Factor Analysis Results of Perceived Local Economic Condition

A principal component analysis revealed that all four items from perceived local economic condition should be retained as their factor loadings were above 0.45. In addition, the sampling adequacy test of The Kaiser-Meyer-Olkin also indicated a value of 0.741. A correlation matrix analysis confirmed that all the inter-items coefficient correlations were also above 0.3, indicating the suitability of data for factor analysis. The Bartlett's test of sphericity reached statistical significance ( $p < 0.05$ ), suggesting the factorability of the correlation matrix. The principle component analysis suggests the presence of only one factor which has eigenvalues exceeding 1, explaining 57.0 percent of the total variance. A review of scree plot depicted a clear break after the one

component. Thus according to Catell's (1966) scree test, only one component was retained for further investigation. The details of factor loading are presented in the Table 4.8 below:

Table 4.8

*Factor Loading for Perceived Local Economic Condition (Original Items Number in the Bracket)*

<b>Variables / Items</b>	<b>Factor loadings</b>
Government should help to create more jobs in Lenggong District (1)	.717
Lenggong desperately need more job opportunities (2)	.797
Lenggong needs more job opportunities to stop young people moving away to cities (3)	.741
Lenggong desperately needs more business opportunities in the local area (4)	.763
Eigenvalue	<b>2.280</b>
% of explained variance	<b>57.0</b>

The results of this factor analysis together with its tests are summarized in the following table.

Table 4.9

*Summary of Factor Analysis Result for Perceived Local Economic Condition*

<b>No.</b>	<b>Factorability assessment</b>	<b>Results</b>	<b>Value required for factor analysis</b>
1	KMO measure of sampling adequacy	0.741	Min value is 0.6
2	Bartlett's test of Sphericity Approx. Chi-Square df significant	357.797 6 <0.0001	P < 0.05
3	Strength of inter-correlation among items	All values greater than 0.3	Correlation coefficient > 0.3
<b>No.</b>	<b>Methods</b>	<b>Results</b>	<b>Remarks</b>
1	Kaiser's Criteria	One factor exceeded eigenvalue of 1	Minimum eigenvalue of 1 is acceptable to retain the factors

Table 4.9 Continued			
2	Catell's scree test	One factor retained	Only one factors was above the value of 1 and above elbow of the curve

The scree plot suggests a clear break after the one component as seen in Figure 4.3 below.

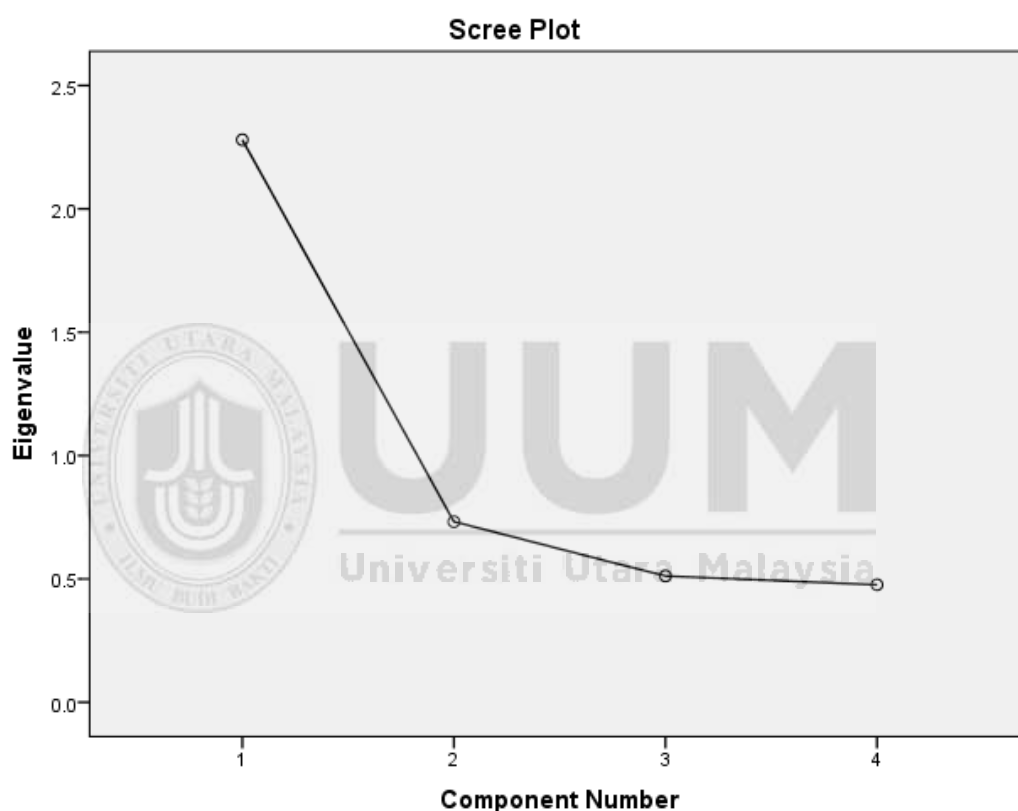


Figure 4.3. Scree plot for perceived local economic condition

#### 4.4.4 Factor Analysis Results of Trust in Government Institutions

All three items from trust in government institutions were retained as their factor loadings were above 0.45 using principal component analysis as the basis. The Sampling adequacy test of The Kaiser-Meyer-Olkin yielded a value of 0.625, which exceeded the minimum value of 0.6. A correlation matrix analysis confirmed that all the inter-items coefficient correlations were also above 0.3. The Bartlett's test of sphericity

reached statistical significance ( $p < 0.05$ ), supporting the factorability of the correlation matrix. The principle component analysis revealed the presence of only one factor which has eigenvalues exceeding 1, explaining 63.5 percent of the total variance. A review of scree plot revealed a clear break after the one component. Using Catell's (1966) scree test, it was decided to retain only one component for further investigation. The details of factor loading are presented in the Table 4.10 below:

Table 4.10

*Factor Loading for Trust in Government Institutions (Original Items Number in the Bracket)*

Variables / Items	Factor loadings
I can generally trust the decision made by government institutions (1)	.844
I can generally trust the people who run government institutions to do what is right (2)	.855
Government institutions can be trusted to do what is right without having to constantly check on them (3)	.678
Eigenvalue	<b>1.904</b>
% of explained variance	<b>63.5</b>

The results of this factor analysis together with its tests are summarized in the following table.

Table 4.11

*Summary of Factor Analysis Result for Trust in Government Institutions*

No.	Factorability assessment	Results	Value required for factor analysis
1	KMO measure of sampling adequacy	0.625	Min value is 0.6
2	Bartlett's test of Sphericity		
	Approx. Chi-Square	260.186	
	df	3	P < 0.05
	significant	<0.0001	



<b>Table 4.11 Continued</b>			
3	Strength of inter-correlation among items	All values greater than 0.3	Correlation coefficient > 0.3
<b>No.</b>	<b>Methods</b>	<b>Results</b>	<b>Remarks</b>
1	Kaiser's Criteria	One factor exceeded eigenvalue of 1	Minimum eigenvalue of 1 is acceptable to retain the factors
2	Catell's scree test	One factor retained	Only one factors was above the value of 1 and above elbow of the curve

A review of scree plot indicated a clear break after the one component (Figure 4.4).

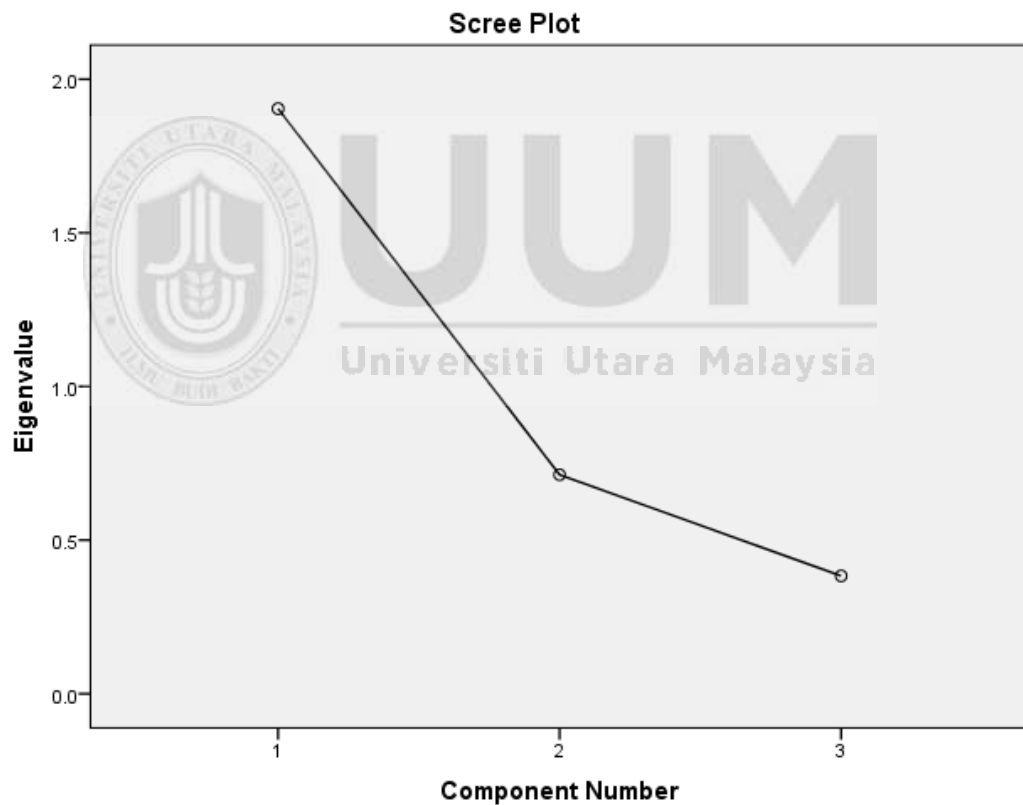


Figure 4.4. Scree plot for trust in government institutions

#### 4.4.5 Factor Analysis Results of Perceptions towards WHS Designation

The fourteen items in the perceptions towards WHS scale were processed using principal component analysis. Based on the principal component analysis, a total of

three items were deleted because factor loading lower than 0.45. The questions deleted were number 5, 7 and 10. The measure of sampling adequacy using The Kaiser-Meyer-Olkin produced a value of 0.836 exceeding the minimum value of 0.6. A correlation matrix analysis also indicated that the majority of inter-items coefficient correlations were above 0.3, which signal the suitability of data for factor analysis. The Bartlett's test of Sphericity reached statistical significant ( $p < 0.05$ ), supporting the factorability of the correlation matrix.

The principal component analysis revealed the presence of two factors with eigenvalues exceeding 1. Factor 1 explains 37.7 percent of the variance, meanwhile factor 2 explains 14.7 percent of variance. Inspection of the component loadings revealed that all eleven items load strongly on component 1 and 2. With reference to existing literature, Factor 1 was named as "perceived benefits of WHS" and Factor 2 as "perceived costs of WHS" (Besculides, 2002; Maikhuri et al., 2001; Nicholas et al., 2009). The details of factor loading are presented in the Table 4.12 below:

Table 4.12

*Factor Loading for Perceptions towards WHS Designation (Original Items Number in the Bracket)*

Items	Factor loadings
<u>Factor 1: Perceived benefits of World Heritage Site</u>	
The protection of World Heritage Site benefits future generation (1)	.782
It is important to protect the World Heritage Site for the survival of various archaeological artefacts (2)	.765
Being part of community rich in culture and history (3)	.620
Improving community's physical infrastructure (4)	.729

**Table 4.12 Continued**

Growth of local cottage industries (6)	.601	
Outsiders/tourists encroachment to the area (8)	.646	
Recognition as World Heritage Site (9)	.496	
<u>Factor 2: Perceived costs of World Heritage Site</u>		
The World Heritage Site has created problems in my life (11)		.725
The World Heritage Site is too large and take up too much land space (12)		.674
Restrictions on other economic activities (e.g. agriculture, mining, logging) (13)		.790
Restrictions on future development potential (housing area, commercial area, industrial area etc.) (14)		.811
Eigenvalue	<b>4.152</b>	<b>1.612</b>
% of explained variance	<b>37.7</b>	<b>14.7</b>

The results of this factor analysis together with its tests are summarized in the following table:

**Table 4.13***Summary of Factor Analysis Result for Perceptions towards WHS Designation*

No.	Factorability assessment	Results	Value required for factor analysis
1	KMO measure of sampling adequacy	0.836	Min value is 0.6
2	Bartlett's test of Sphericity Approx. Chi-Square df significant	1399.540 55 <0.0001	P <0.05
3	Strength of inter-correlation among items	Almost all values greater than 0.3	Correlation coefficient > 0.3
No.	Methods	Results	Remarks
1	Kaiser's Criteria	Two factors exceeded eigenvalue of 1	Minimum eigenvalue of 1 is acceptable to retain the factors

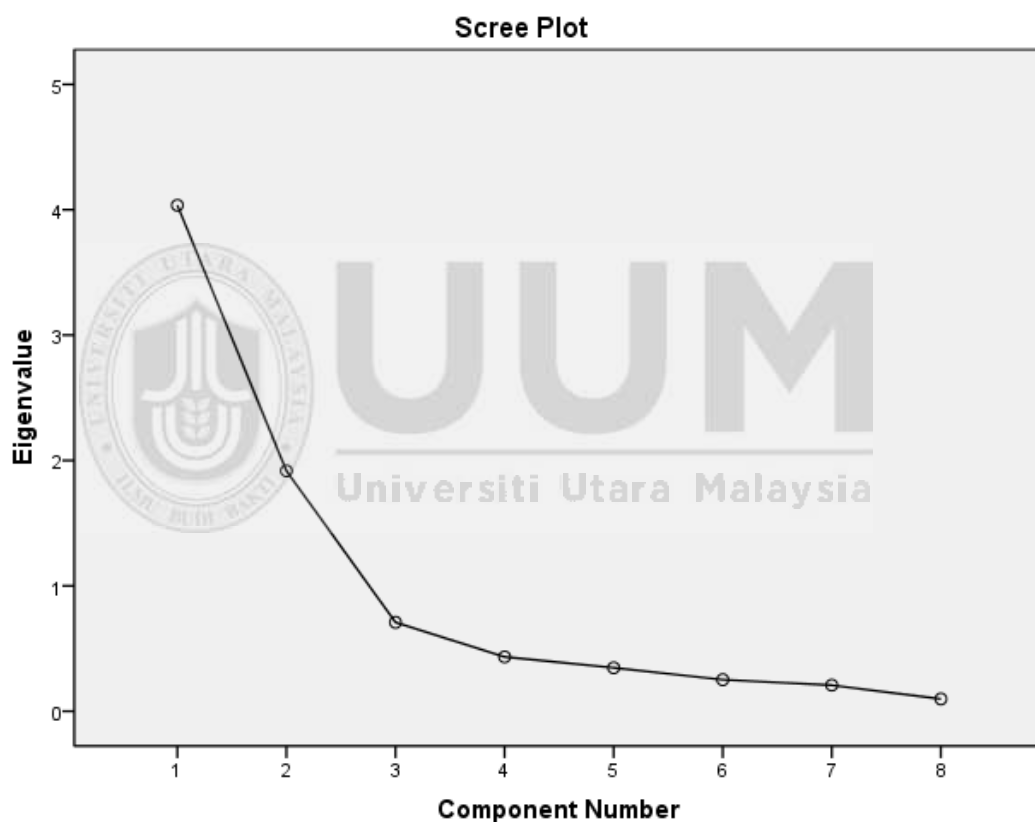
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**Table 4.13 Continued**

2	Catell's scree test	Two factors retained	Only two factors were above the value of 1 and above elbow of the curve
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A review of scree plot revealed a clear break after the two components. Using Catell's (1966) scree test, it was decided to retain only two components for further investigation (Figure 4.5).



*Figure 4.5.* Scree plot for perceptions towards WHS

#### **4.4.6 Factor Analysis Results of Support for Sustainable Tourism Development**

The eight items within the support for sustainable tourism development scale were analysed using principal component. The principal component analysis found that a total of two items with factor loading lower than 0.45, thus were deleted. The items

deleted were number 7 and 8. The Kaiser-Meyer-Olkin value that measure sampling adequacy was found to be at 0.854 exceeding the minimum value of 0.6 as recommended by Tabachnick and Fidell (2007). The majority coefficient correlations values as a result of correlation matrix analysis were above 0.3 indicating the data suitability for factor analysis. The Bartlett's test of sphericity reached statistical significant ( $p < 0.05$ ), supporting the factorability of the correlation matrix.

The principal component analysis indicated the presence of one factor with eigenvalues exceeding 1, explaining a total of 57.8 percent of the variance. Close examination of the component loadings revealed that all six items load strongly on component 1. The details of factor loading are presented in the Table 4.14 below:

Table 4.14

*Factor Loading for Support for Sustainable Tourism Development (Original Items Number in the Bracket)*

Items	Support Sustainable Tourism
Development of community-based tourism initiatives (1)	.833
Local involvement in tourism planning and development (2)	.837
Cooperation and unity in tourism planning and development (3)	.806
Promotion of heritage education and conservation (4)	.750
Commitment in adhering to the regulations & guidelines to maintain the WHS (5)	.804
The designation of Lenggong Valley as UNESCO's World Heritage Site (6)	.467
Eigenvalue	<b>3.470</b>
% of explained variance	<b>57.8</b>

The results of this factor analysis together with its tests are summarized in the following table:

Table 4.15

*Summary of Factor Analysis Result for Sustainable Tourism Development*

No.	Factorability assessment	Results	Value required for factor analysis
1	KMO measure of sampling adequacy	0.854	Min value is 0.6
2	Bartlett's test of Sphericity Approx. Chi-Square df significant	1030.163 15 <0.0001	P <0.05
3	Strength of inter-correlation among items	Almost all values greater than 0.3	Correlation coefficient > 0.3
No.	Methods	Results	Remarks
1	Kaiser's Criteria	One factor exceeded eigenvalue of 1	Minimum eigenvalue of 1 is acceptable to retain the factors
2	Catell's scree test	One factor retained	Only one factor was above the value of 1 and above elbow of the curve

The scree plot revealed a clear break after the one component. Thus, according to Catell's (1966) scree test, it was decided to retain only one component for further investigation (Figure 4.6).

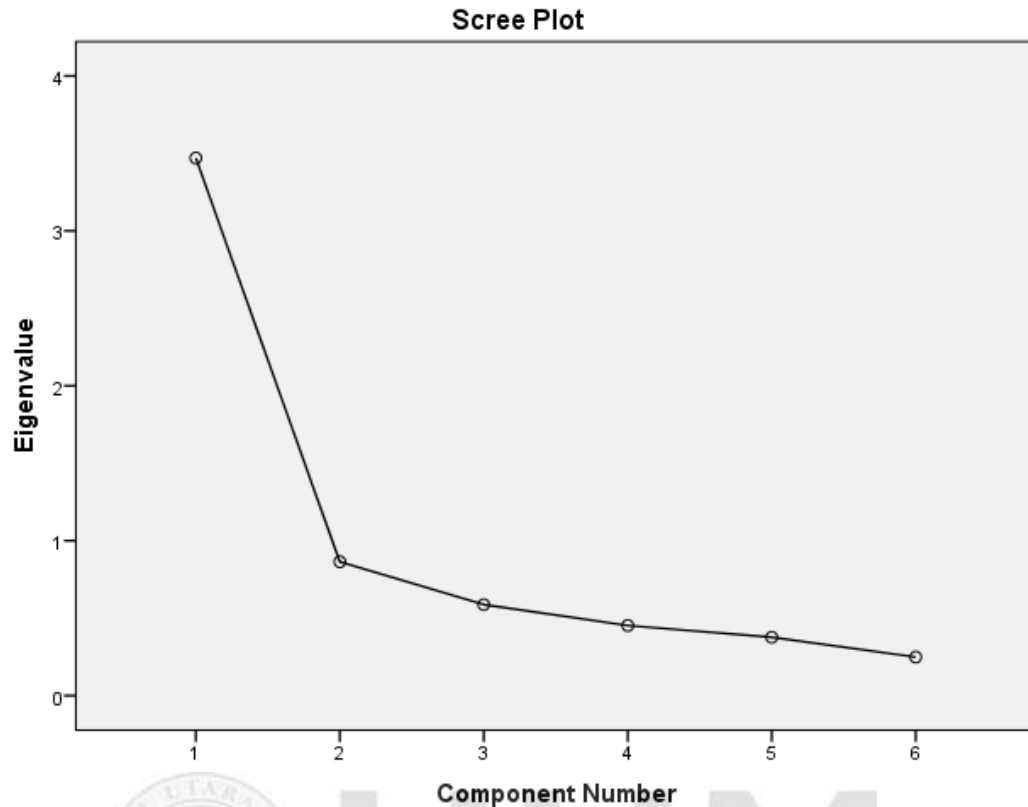


Figure 4.6. Scree plot for support for sustainable tourism development

#### 4.5 Reliability Analysis

Reliability analysis was carried out to assess all the items in the under study constructs in terms of their test-retest reliability and internal consistency. This can be done using Cronbach's alpha test and inter-item correlations.

##### 4.5.1 Cronbach's Alpha

All quantitative data representing understudy variables (i.e. community attachment, community involvement, perceived local economic condition, trust in government institutions, perceptions towards WHS, and support for sustainable tourism development,) were subjected to reliability test in order to evaluate the internal consistency of the questionnaire items. The method used to assess the inter-item

consistency reliability in this study was the Cronbach coefficient alpha as recommended by Sekaran (2000). The above reliability method was then followed by corrected item-total correlation computation. The results of the above reliability analysis are shown in the Table 4.16.

Table 4.16

*Reliability Test*

Variables tested	Cronbach's Alpha Value	No. of items
Community attachment	.902	8
Community involvement	.890	4
Perceived local economic condition	.742	4
Trust in government institutions	.682	3
Perception towards WHS designation:		
Perceived benefits WHS	.804	7
Perceived costs WHS	.770	4
Support for sustainable tourism	.853	6

The table above indicates that all understudy variables have the Cronbach's alpha values of exceeding 0.6. According to Hair et al. (2010), the minimum acceptable value of Cronbach' alpha is between 0.6 and 0.7 in social science researches. In addition to this, the inter-items correlation measuring the competence of measurement tool was also conducted representing all the understudy variables in the following section.

#### 4.5.2 Items Analysis and Correlation between Items

The purpose of this item analysis is to show the correlation between each item of the measurement scale and the total score. This analysis involved all the understudy variables, namely community attachment, community involvement, perceived local economic condition, trust in government institutions, perceptions towards WHS, and



support for sustainable tourism development. The value of the corrected item-total correlation provides the indicator for retaining or omitting item statements in the scale. Table 4.17 below shows the corrected item-total correlation for community attachment.

Table 4.17

*Results from Item Analysis for Community Attachment*

Items no.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	37.3466	51.747	.704	.888
2	37.1646	51.678	.700	.889
3	37.2319	53.204	.690	.890
4	37.6434	50.315	.720	.887
5	37.5411	50.929	.757	.883
6	37.5786	52.859	.659	.892
7	37.3092	54.169	.664	.892
9	37.4738	53.295	.634	.895

All the items under community attachment do not contain corrected item-total correlation value less than 0.15. Thus, no omission is necessary for items under this variable. The following Table 4.18 exhibit the results of item analysis for community involvement.

Table 4.18

*Results from Item Analysis for Community Involvement*

Items no.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	6.3940	19.194	.758	.858
2	6.4464	19.333	.844	.828
3	6.5561	19.577	.772	.853
4	6.3242	19.590	.671	.893

From the table above, none of the items under community involvement produced corrected item-total correlation less than 0.15, thus all items were retained. The

following Table 4.19 exhibit the results of item analysis for perceived local economic condition.

Table 4.19

*Results from Item Analysis for Perceived Local Economic Condition*

Items no.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	4.2244	3.005	.491	.706
2	4.1721	2.828	.592	.651
3	4.0200	2.555	.521	.700
4	4.2444	3.020	.557	.674

All the items under perceived local economic condition produced corrected item-total correlation more than 0.15. Thus, all items under this variable were retained. The following Table 4.20 exhibit the results of item analysis for trust in government institutions.

Table 4.20

*Results from Item Analysis for Trust in Government Institutions*

Items no.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	11.9027	4.438	.554	.525
2	11.8803	4.481	.579	.503
3	12.3466	3.832	.401	.762

All the items under trust in government institutions have corrected item-total correlation more than 0.15. Thus, all items under this variable were retained. In conclusion, all items used in this study have strong inter-correlation, which resulting in a strong reliability.

Table 4.21

*Results from Item Analysis for Perceptions towards WHS Designation*

Items no.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	38.7431	10.011	.601	.769
2	38.7955	9.783	.630	.763
3	38.8030	10.184	.537	.779
4	38.9227	9.462	.631	.761
6	39.0898	9.652	.495	.789
8	38.8928	10.001	.511	.784
9	38.6833	10.417	.395	.805
11	4.9776	5.752	.488	.757
12	4.5985	4.461	.542	.744
13	4.8055	4.907	.659	.672
14	4.7406	4.718	.631	.683

No items under perceptions towards WHS produced corrected item-total correlation less than 0.15. Thus, no omission is necessary for items under this variable. The following Table 4.22 exhibit the results of item analysis for support for sustainable tourism development.

Table 4.22

*Results from Item Analysis for Support for Sustainable Tourism Development.*

Items no.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	30.6309	15.193	.730	.810
2	30.6534	15.082	.735	.809
3	30.5661	16.216	.694	.818
4	30.3441	17.301	.628	.831
5	30.5012	15.641	.692	.818
6	29.8853	20.267	.350	.871

With regards to support for sustainable tourism development, none of the items was less than 0.15 in corrected item-total correlation values. According to Loewenthal (1996), an item correlation of 0.15 or less should be omitted from the scale.

## 4.6 Descriptive Analysis

The following sections discussed the results of descriptive analysis for each of the under study variable using mean and standard deviation.

### 4.6.1 Independent Variables

There are four independent variables involved in this study namely community attachment, community involvement, perceived local economic condition, and trust in government institutions. The Table 4.23 below display the result of their descriptive analyses.

Table 4.23

*Mean and Standard Deviation for Independent Variables (Original Items Number in the Bracket)*

Items	Mean	Standard deviations
<u>Community attachment</u>		
I am very attached to this community (1)	5.41	1.357
I feel like I belong to this community (2)	5.59	1.374
The friendships and associations that I have with other people in this community mean a lot to me (3)	5.52	1.255
If the people in the community were planning something, I'd think of it as something we were doing rather than they were doing (4)	5.11	1.459
If I needed advice about something, I could go to someone in this community (5)	5.21	1.350
I think I agree with most people in this community about what is important in life (6)	5.17	1.327
I feel loyal to the people in this community (7)	5.45	1.199
I'd like to think of myself as similar to the people who live in this community (9)	5.28	1.325

---

**Table 4.23 Continued****Community involvement**

My involvement with Lenggong Valley World Heritage Site (1)	2.17	1.693
My involvement in the decision-making about the local development (2)	2.13	1.556
My involvement in a committee that discuss the development and future of Lenggong as a tourism destination (3)	2.02	1.623
My involvement in occupations related to local tourism services (e.g. hotels, homestay, restaurants, tour guides, taxi) (4)	2.25	1.777

---

**Perceived local economic condition**

Government should help to create more jobs in Lenggong (1)	1.33	.693
Lenggong desperately needs more job opportunities (2)	1.38	.687
Lenggong needs more job opportunities to stop young people moving away to cities (3)	1.53	.843
Lenggong desperately need more business opportunities in the local area (4)	1.31	.639

---

**Trust in government institutions**

You can generally trust the decision made by government institutions (1)	6.16	1.107
You can generally trust the people who run government institutions to do what is right (2)	6.18	1.070
Government institutions can be trusted to do what is right without having to constantly check on them (3)	5.72	1.458

---

The above descriptive statistics show that the majority of respondents were highly attached to their community. In terms of community involvement, the involvements of respondents with Lenggong Valley tourism and heritage management were considered very low. This is because tourism development in Lenggong at this point in time is still relatively small. However, the lack of involvement among local residents could be linked to the failure of the authority to invite them to participate actively in the

decision-making on WHS's future. Meanwhile, the perceived local economic condition indicated that the majority of respondents want tourism industry to be developed in the district as it can create economic benefits. This also means that the economic condition of the district is still poor where many are asking for more new jobs and business opportunities to be created. In terms of trust, most of respondents have very high confidence in government institutions. This could be attributed to the governments past record in developing economic sectors of Lenggong District as perceived by local residents.

#### 4.6.2 Mediating Variable

The descriptive analyses for mediating variables - perceived benefits of WHS, and perceived costs of WHS as shown in Table 4.24.

Table 4.24

*Mean and Standard Deviation for Mediating Variables (Original Items Number in the Bracket)*

Items	Mean	Standard deviations
<u>Perceived benefits of World Heritage Site designation</u>		
Benefits future generation (1)	6.57	.685
It is important to protect the World Heritage Site for the survival of various archaeological artefacts (2)	6.53	.710
Being part of community rich in culture and history (3)	6.52	.704
Improving community's physical infrastructure (4)	6.40	.778
Growth of local cottage industries (6)	6.23	.871
Outsiders/tourists encroachment to the area (8)	6.43	.771
Recognition as World Heritage Site (9)	6.64	.798

**Table 4.24 Continued**Perceived costs of World Heritage Site designation

The World Heritage Site has created problems in my life (11)	1.39	.781
The World Heritage Site is too large and take up too much land space (12)	1.77	1.099
Restrictions on other economic activities (e.g. agriculture, mining, logging) (13)	1.57	.866
Restrictions on future development potential (housing area, commercial area, industrial area etc.) (14)	1.63	.942

Most of respondents viewed the benefits of WHS designation highly. The majority of them also agreed that it was good to have Lenggong Valley recognized as WHS (m=6.64), designation of WHS will benefits future generations (m=6.57), and being part of community rich in culture and history (m=6.52). In contrast, the majority perceived the costs of WHS designation as insignificance or not important.

**4.6.3 Dependent Variable**

The dependent variable used in this study is support for sustainable tourism development. The result is displayed in the Table 4.25.

Table 4.25

*Mean and Standard Deviation for Dependent Variable*

Items	Mean	Standard deviations
<u>Support for sustainable tourism development</u>		
Development of community-based tourism initiatives (1)	5.88	1.176
Local involvement in tourism planning and development (2)	5.86	1.187
Cooperation and unity in tourism planning and development (3)	5.95	1.057

---

**Table 4.25 Continued**

Promotion of heritage education and conservation (4)	6.17	.960
Commitment in adhering to the regulations & guidelines to maintain the World Heritage Site (5)	6.01	1.148
The designation of Lenggong Valley as UNESCO's World Heritage Site (6)	6.63	.760

---

From the above results, the majority of respondents were very supportive of sustainable tourism development in Lenggong. The highest scores were recorded for the designation of Lenggong Valley as UNESCO's WHS ( $m=6.63$ ), promotion of heritage education and conservation ( $m=6.17$ ), commitment in adhering to the regulations and guidelines to maintain the WHS ( $m=6.01$ ). Therefore, it can be concluded that, the majority of residents in Lenggong preferred to have sustainable tourism development within their district.

#### 4.7 Regression Analysis and Hypothesis Testing

Multiple regression analysis is a statistical technique that measures the relationship between a single dependent variable and several independent variables. The prerequisite for multiple regression analysis is that all variables (both dependent and independent) must be in metric form. The variables used under this study were all in metric forms. Before multiple regression analysis can take place, several assumptions must be satisfied. These assumptions comprise of normality, linearity of phenomenon, homoscedasticity, and multicollinearity. Normality tests have been performed earlier indicating the suitability of data for multivariate analysis. Now, the following tests needed for multiple regression analysis are linearity of phenomenon, homoscedasticity, and multicollinearity of variables.



#### **4.7.1 Linearity of Phenomenon**

The linearity of phenomena is crucial for regression analysis. It can be identified by drawing a straight line on the scatter plot (specifically partial regression plot) that measures the relationship between the understudy variables. The results of linearity of phenomena is presented using scatter plot in Appendix E. The scatter plot indicated that the presence of linearity in regression analysis.

#### **4.7.2 Homoscedasticity**

Homoscedasticity (or constant error variance) refers to the assumptions that the dependent variable exhibit equal levels of variance across a range of predictor variables (Hair et al., 2010). If the dispersion of variance is not equal, than the situation known as heteroscedastic is said to occur. In order to detect homoscedasticity, a scatter plot of the regression analysis between predictor variables and dependent variable must be illustrated. The scatter plot in Appendix F indicated the absence of heteroscedasticity, thus making regression analysis appropriate.

#### **4.7.3 Multicollinearity by Person correlation**

Multicollinearity refers to the strength of correlation between more than three independent variables. In simplest terms, “each independent variable becomes a dependent variable and is regressed against the remaining independent variables” (Hair et al. 2010, p.197). When independent variables are said to multi-collinear, there is an ‘overlap’ or sharing of predictive power. In order to examine the multicollinearity, a Pearson correlation test was conducted to all independent variables as shown in the Table 4.26. The correlation matrix shows that the correlations between independent

variables are small less than .80. According to Sekaran (2010), the presence of correlation of .80 and higher is the first indication of substantial collinearity.

In addition to Pearson correlation analysis, the results of tolerance and variation inflation factor (VIF) were also tested to confirm the presence of multicollinearity. These two parameters indicate how much of the variability of the specified independent is not explained by the other independent variables in the model. The small tolerance value of below 0.10 and the VIF higher than 10 indicates the presence of multicollinearity as suggested by Pallant (2007). The above tests in this study found that no values exceeding the above recommended border, thus indicating the absence of multicollinearity. This caused all variables to be retained for further multiple regression analysis.



Table 4.26

*Analysis for Multicollinearity by Pearson Correlation, Tolerance and VIF Values*

	Support for sustainable tourism	Community attachment	Community involvement	Local economic condition	Trust in government institutions	Perceived benefits of WHS	Tolerance	VIF
Community attachment	.309**	-	-	-	-	-	.762	1.312
Community involvement	-.117*	.145**	-	-	-	-	.835	1.198
Local economic condition	-.287**	-.111*	.301**	-	-	-	.687	1.456
Trust in government institutions	.361**	.175**	-.088	.407**	-	-	.780	1.282
Perceived benefits WHS designation	.395**	.384**	-.125*	-.409**	.296**	-	.650	1.539
Perceived costs of WHS designation	-.327**	-.344**	.200**	.253**	-.309**	-.455**	.705	1.418

\*\* . Correlations significant at the 0.01 level (2-tailed)

\* . Correlations significant at the 0.05 level (2-tailed)

#### 4.7.4 Hypothesis Testing

This section describes the results for each of the stated hypotheses. The standard multiple regression was employed to test the direct and indirect relationship between the under study variables as indicated by respective hypothesis. There were 4 hypotheses stated earlier in the previous chapter which involved the direct relationship between four independent variables (i.e. community attachment, community involvement, perceived local economic condition, trust in government institutions) and one dependent variable (i.e. support for sustainable tourism development) as shown below:

- H1: There is a significant relationship between community attachment and support for sustainable tourism development.
- H2: There is a significant relationship between community involvement and support for sustainable tourism development.
- H3: There is a significant relationship between local economic condition and support for sustainable tourism development.
- H4: There is a significant relationship between trust in government institutions and support for sustainable tourism development.

The multiple regression model indicated that the above independent variables explain about 22.1% of variance in support for sustainable tourism development ( $R^2 = .221$ ,  $F = 28.089$ ,  $p < .01$ ). In details, significant positive relationships were found between community attachment ( $\beta = .216$ ,  $t = 5.767$ ,  $p < .01$ ), trust in government institutions ( $\beta = .215$ ,  $t = 5.214$ ,  $p < .01$ ), and support for sustainable tourism development. This suggests that, residents with higher community attachment and trust in government institutions will likely support sustainable tourism development than the rest. However, the analysis indicated that community involvement did not have any significant

relationship with support for sustainable tourism development ( $\beta=-.053$ ,  $t=-2.002$ ,  $p>.05$ ).

On the other hand, perceived economic conditions ( $\beta=-.186$ ,  $t=-2.455$ ,  $p<.05$ ), recorded significant negative relationships with support for sustainable tourism development as expected. The lower scores on perceived economic conditions will results in higher support for sustainable tourism development and vice verse. In this case, residents that perceived the local economic as poor will most likely support sustainable tourism development. The following is the summary of multiple regressions between independent variables and support for sustainable tourism development.

Table 4.27

*Summary of Multiple Regressions between Independent Variables and Support for Sustainable Tourism Development*

Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.997	.347		11.534	.000
	Community attachment	.216	.037	.265	5.767	.000
	Community involvement	-.053	.026	-.095	-2.002	.076
	Perceived local economy	-.186	.076	-.125	-2.445	.015
	Trust in government	.215	.041	.256	5.214	.000

Subsequently, the testing of the above direct hypotheses with mediating variables were carried out according to methods developed by Barron and Kenny (1986). There are four paths that must be tested in order to achieve the mediating effects as shown in figure 4.7:

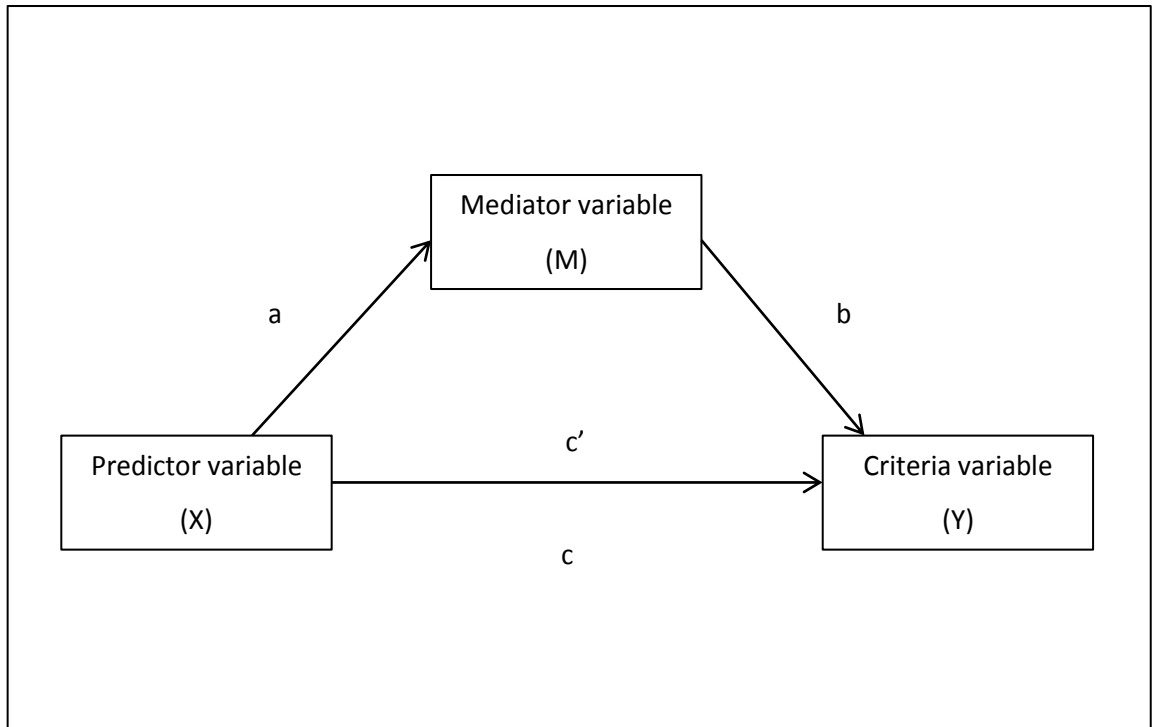


Figure 4.7. Mediation paths developed by Barron and Kenny (1986)

Perceptions towards WHS designation as the mediating variable were broken up into two dimensions in line with the outcomes of factor analysis. The list of hypotheses dealing with mediating roles is as follows:

- H5a: Perceived benefits of WHS mediate the relationship between community attachment and support for sustainable tourism development
- H5b: Perceived costs of WHS mediate the relationship between community attachment and support for sustainable tourism development
- H6a: Perceived benefits of WHS mediate the relationship between community involvement and support for sustainable tourism development
- H6b: Perceived costs of WHS mediate the relationship between community involvement and support for sustainable tourism development

- H7a: Perceived benefits of WHS mediate the relationship between perceived local economic condition and support for sustainable tourism development
- H7b: Perceived costs of WHS mediate the relationship between perceived local economic condition and support for sustainable tourism development
- H8a: Perceived benefits of WHS mediate the relationship between trust in government institutions and support for sustainable tourism development
- H8b: Perceived costs of WHS mediate the relationship between trust in government institutions and support for sustainable tourism development

***Testing the Mediating Role of Perceived Benefits of WHS on the Relationship between Community Attachment and Support for Sustainable Tourism Development***

The hypothesis for the above mediating role is as follows:

- H5a: Perceived benefits of WHS mediate the relationship between community attachment and support for sustainable tourism development

To test the above mediation, 4 steps or paths need to be taken as suggested by Barron and Kenny (1986). First, path c was found to be significant ( $\beta=.216$ ,  $t=5.767$ ,  $p<.01$ ), thus supporting the first requirement. Secondly, path a was assessed using a linear regression analysis which indicated there was also a significant relationship ( $\beta=.186$ ,  $t=7.840$ ,  $p<.01$ ). In step 3, path b was then found to be also significant ( $\beta=.329$ ,  $t=4.254$ ,  $p<.01$ ). Finally step 4 (path c') was carried out to complete the mediating effect by taking into account the predictive power of path b. The hierarchical regression analysis revealed the relationship between community attachment and support for sustainable tourism development (path c') was still significant ( $\beta=.154$ ,  $t=3.921$ ,  $p<.01$ ), but with a noticeable reduction in unstandardized coefficients ( $\beta$ ) value. This suggests that there is a partial mediation in the relationship between community attachment and support for sustainable tourism development. However, to confirm the above partial mediation, a Sobel mediation test was computed using Sobel tests calculator and the test result was

significant ( $t=3.74174$ ,  $p<.01$ ). Thus, this confirms that there is a partial mediation for the H5a. Figure 4.8 shows the mediating effects of perceived benefits of WHS on the above relationship.

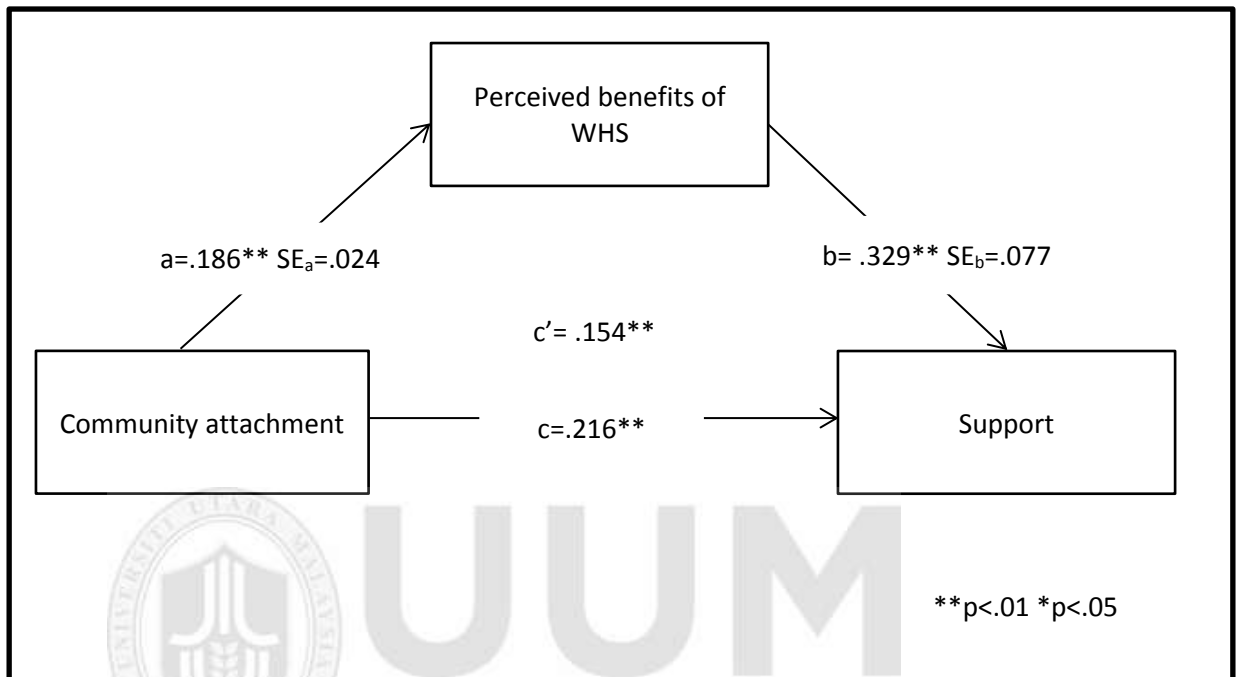


Figure 4.8. The mediation of perceived benefits of WHS between community attachment and support for sustainable tourism development

The statistics for the mediating effect of perceived benefits of WHS on the relationship between community attachment and support for sustainable tourism development was also summarized in the following Table 4.28:



Table 4.28

*Summary of Regression Equation Result for the Mediating Role of Perceived Benefits of WHS on the Relationship between Community Attachment and Support for Sustainable Tourism Development*

Independent variables	Dependent variable	Equation	$\beta$	Std. Error
Community attachment	Support	c	.216**	.037
Community attachment	Perceived benefits of WHS	a	.186**	.024
Perceived benefits of WHS	Support	b	.329**	.077
Community attachment	Support	c'	.154**	.039

***Testing the Mediating Role of Perceived Costs of WHS on the Relationship between Community Attachment and Support for Sustainable Tourism Development***

The following is the hypothesis for the above mediating role:

H5b: Perceived costs of WHS mediate the relationship between community attachment and support for sustainable tourism development

In the first step, path c was found to be significant ( $\beta=.216$ ,  $t=5.767$ ,  $p<.01$ ), thus supporting the first requirement. Secondly, path a shows a significant negative relationship ( $\beta=-.268$ ,  $t=-7.269$ ,  $p<.01$ ). In step 3, path b was then analysed and also confirmed a significant negative relationship ( $\beta=-.141$ ,  $t=-2.783$ ,  $p<.01$ ). Finally step 4 (path c') was carried out to complete the mediating effect by taking into account the predictive power of path b. The regression analysis indicated the relationship between community attachment and support for sustainable tourism development was still significant ( $\beta=.178$ ,  $t=4.508$ ,  $p<.01$ ), but with a reduction in unstandardized coefficients ( $\beta$ ) value. This suggests that there is a partial mediation of perceived costs of WHS on the relationship between community attachment and support for sustainable tourism development. A Sobel mediation test was then computed using Sobel tests calculator to

confirm the mediation role of perceived costs of WHS and the test result was significant ( $t=2.58295$ ,  $p<.01$ ). Thus, this confirmed that there is a partial mediation for the H5b. Figure 4.9 shows the mediating effects of perceived costs of WHS on the above relationship.

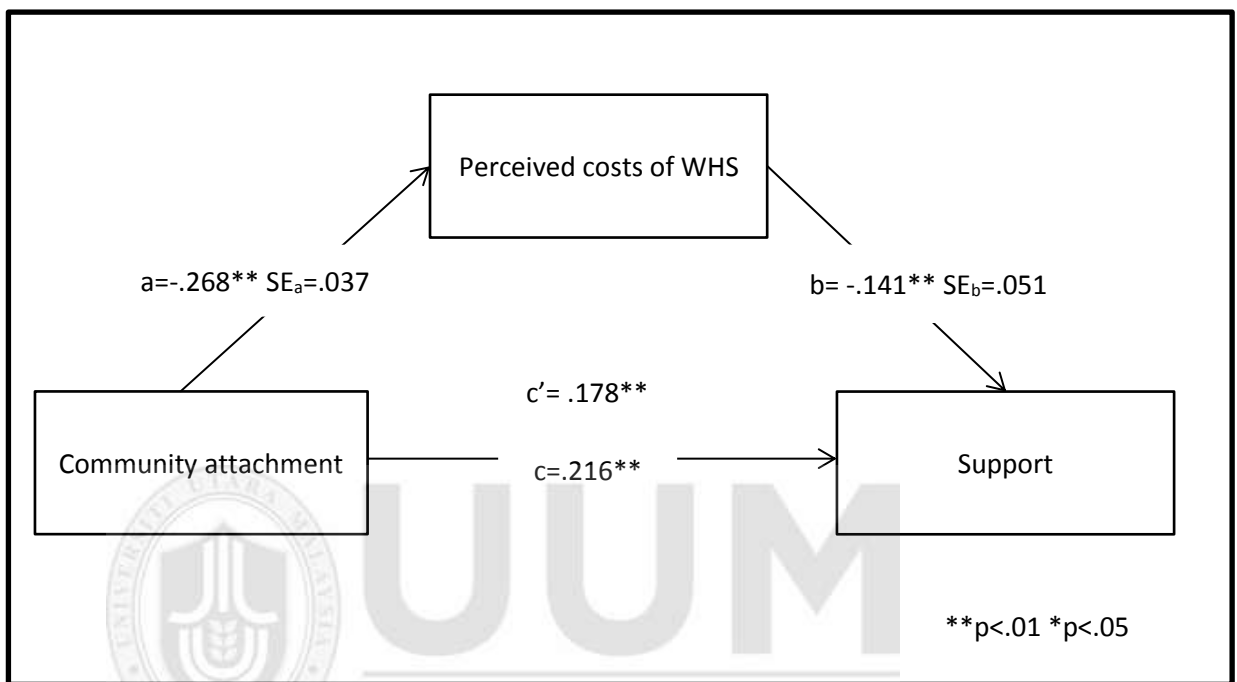


Figure 4.9. The mediation of perceived costs of WHS between community attachment and support for sustainable tourism development

The regression equation for mediating testing of perceived costs of WHS on the relationship between community attachment and support for sustainable tourism development was also summarized in the following Table 4.29:

Table 4.29

*Summary of Regression Equation Result for the Mediating Role of Perceived Costs of WHS on the Relationship between Community Attachment and Support for Sustainable Tourism Development*

<b>Independent variables</b>	<b>Dependent variable</b>	<b>Equation</b>	<b><math>\beta</math></b>	<b>Std. Error</b>
Community attachment	Support	c	.216**	.037
Community attachment	Perceived costs of WHS	a	-.268**	.037
Perceived costs of WHS	Support	b	-.141**	.051
Community attachment	Support	c'	.178**	.039

***Testing the Mediating Role of Perceived Benefits on the Relationship between Community Involvement and Support for Sustainable Tourism Development***

The following is the hypothesis for the above mediating role:

H6a: Perceived benefits of WHS mediate the relationship between community involvement and support for sustainable tourism development

Based on the linear regression analysis, path c was not found to have any significant relationship ( $\beta = -.053$ ,  $t = -2.002$ ,  $p > .05$ ), thus did not fulfil the first requirement. Once path c could not be established, then there was no need to further continue the mediating analysis. Thus, the mediation effect of perceived benefits on the relationship between community involvement and support for sustainable tourism development (H6a) could not be tested or in other words, there is no mediation could be confirmed.

***Testing the Mediating Role of Perceived Costs on the Relationship between Community Involvement and Support for Sustainable Tourism Development***

The following is the hypothesis for the above mediating role:

H6b: Perceived costs of WHS mediate the relationship between community involvement and support for sustainable tourism development

Same as the above case, path c was not found to have any significant relationship ( $\beta = -.053$ ,  $t = -2.002$ ,  $p > .05$ ), therefore failed to satisfy the first requirement. Once path c could not be established, then there was no need to further continue the mediating analysis. Therefore, the mediation effect of perceived costs on the relationship between community involvement and support for sustainable tourism development (H6b) could not be tested or in other words, there is no mediation could be confirmed.

***Testing the Mediating Role of Perceived Benefits of WHS on the Relationship between Perceived Local Economic Condition and Support for Sustainable Tourism Development***

The following is the hypothesis for the above mediating role:

H7a: Perceived benefits of WHS mediate the relationship between perceived local economic condition and support for sustainable tourism development

The linear regression analysis revealed that path c established significant negative relationship ( $\beta = -.186$ ,  $t = -2.445$ ,  $p < .05$ ), thus supporting the first requirement. Path a also confirmed a significant negative relationship ( $\beta = -.305$ ,  $t = -6.318$ ,  $p < .01$ ). Path b was then tested and found to have a significant positive relationship ( $\beta = .329$ ,  $t = 4.254$ ,  $p < .01$ ). Finally path c' was analysed to determine the mediating effect by taking into account the predictive power of path b. The regression analysis indicated that the relationship between perceived economic condition and support for sustainable tourism development was no longer significant ( $\beta = -.085$ ,  $t = -1.093$ ,  $p > .05$ ), thus suggesting a full mediation. In this case, a Sobel mediation test was not required. In conclusion, there is a full mediation for the H7a. Figure 4.10 shows the mediating effects of perceived benefits of WHS on the above relationship.

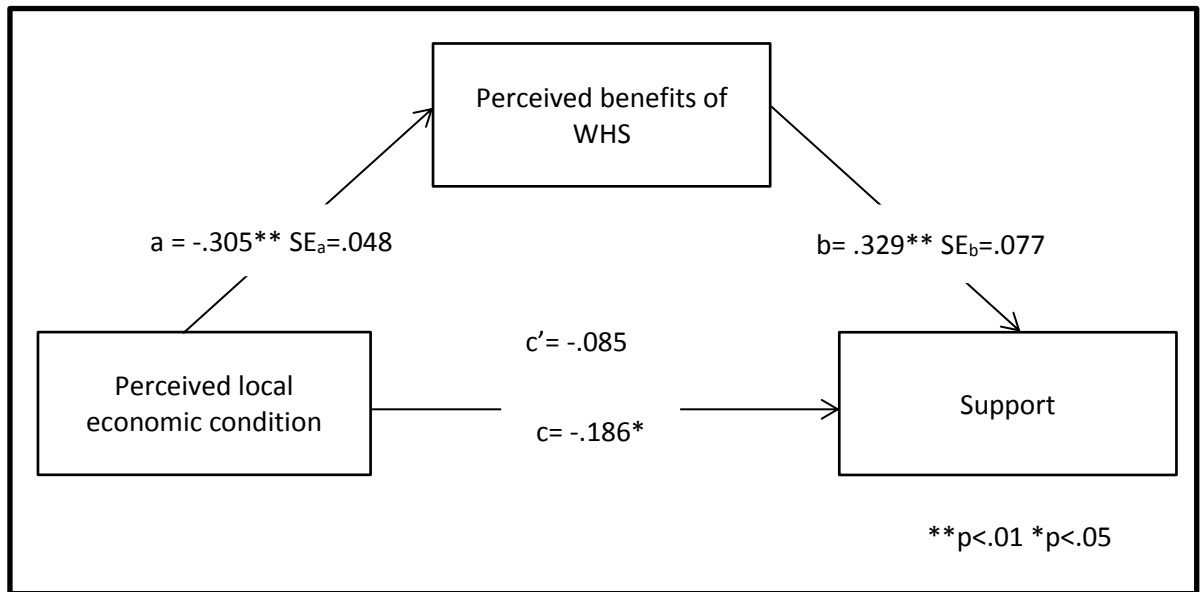


Figure 4.10. The mediation of perceived benefits of WHS between perceived local economic condition and support for sustainable tourism development

The regression equation for mediating testing of perceived benefits of WHS on the relationship between perceived local economic condition and support for sustainable tourism development was also summarized in the following Table 4.30:

Table 4.30

*Summary of Regression Equation Result for the Mediating Role of Perceived Benefits of WHS on the Relationship between Perceived Local Economic Condition and Support for Sustainable Tourism Development*

Independent variables	Dependent variable	Equation	$\beta$	Std. Error
Perceived local economic condition	Support	c	-.186*	.076
Perceived local economic condition	Perceived benefits of WHS	a	-.305**	.048
Perceived benefits of WHS	Support	b	.329**	.077
Perceived local economic condition	Support	c'	-.085	.078

***Testing the Mediating Role of Perceived Costs of WHS on the Relationship between Perceived Local Economic Condition and Support for Sustainable Tourism Development***

The following is the hypothesis for the above mediating role:

H7b: Perceived costs of WHS mediate the relationship between perceived local economic condition and support for sustainable tourism development

The linear regression analysis found that path c formed significant negative relationship ( $\beta = -.186$ ,  $t = -2.445$ ,  $p < .01$ ), thus supporting the first requirement. Path a however did not find any significant relationship ( $\beta = .103$ ,  $t = 1.384$ ,  $p > .05$ ). Once path a could not be established, then further mediating analysis will be invalid. Therefore, the mediation effect of perceived costs on the relationship between perceived local economic condition and support for sustainable tourism development (H7b) could not be tested, or in other words, there is no mediation could be confirmed.

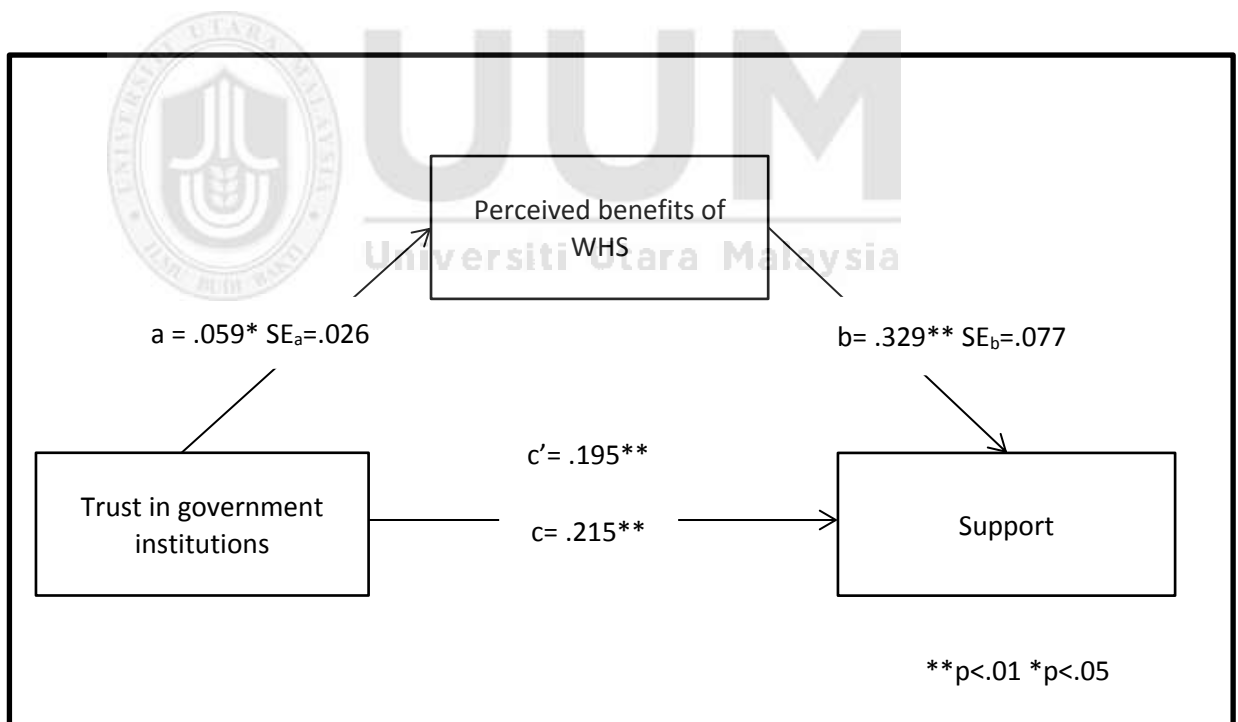
***Testing the Mediating Role of Perceived Benefits of WHS on the Relationship between Trust in Government Institutions and Support for Sustainable Tourism Development***

The following is the hypothesis for the above mediating role:

H8a: Perceived benefits of WHS mediate the relationship between trust in government institutions and support for sustainable tourism development

Using linear regression analysis, path c was found to have significant positive relationship ( $\beta = .215$ ,  $t = 5.214$ ,  $p < .01$ ), thus supporting the first requirement. Path a also revealed a significant positive relationship ( $\beta = .059$ ,  $t = 2.259$ ,  $p < .05$ ). Similarly path b established significant positive relationship ( $\beta = .329$ ,  $t = 4.254$ ,  $p < .01$ ). The final step,

path  $c'$  was analysed to confirm the mediating effect by taking into account the predictive power of path  $b$ . The regression analysis indicated that the relationship between trust in government institutions and support for sustainable tourism development was still significant ( $\beta=.195$ ,  $t=4.811$ ,  $p<.01$ ), but with some reduction in unstandardized coefficient ( $\beta$ ). This suggests that there is a partial mediation of perceived benefits of WHS on the relationship between trust in government institutions and support for sustainable tourism development. In order to confirm this partial mediation, a Sobel mediation test was then computed and revealed that it was significant ( $t=2.00412$ ,  $p<.01$ ). In conclusion, there is a partial mediation for the H8a. Figure 4.11 shows the mediating effects of perceived costs of WHS on the above relationship.



*Figure 4.11.* The mediation of perceived benefits of WHS between trust in government institutions and support for sustainable tourism development

The regression equation for mediating testing of perceived benefits of WHS on the relationship between trust in government institutions and support for sustainable tourism development was also summarized in the following Table 4.31:

Table 4.31

*Summary of Regression Equation Result for the Mediating Role of Perceived Benefits of WHS on the Relationship between Trust in Government Institutions and Support for Sustainable Tourism Development*

Independent variables	Dependent variable	Equation	$\beta$	Std. Error
Trust in government institutions	Support	c	.215**	.041
Trust in government institutions	Perceived benefits of WHS	a	.059*	.026
Perceived benefits of WHS	Support	b	.329**	.077
Trust in government institutions	Support	c'	.195**	.041

***Testing the Mediating Role of Perceived Costs of WHS on the Relationship between Trust in Government Institutions and Support for Sustainable Tourism Development***

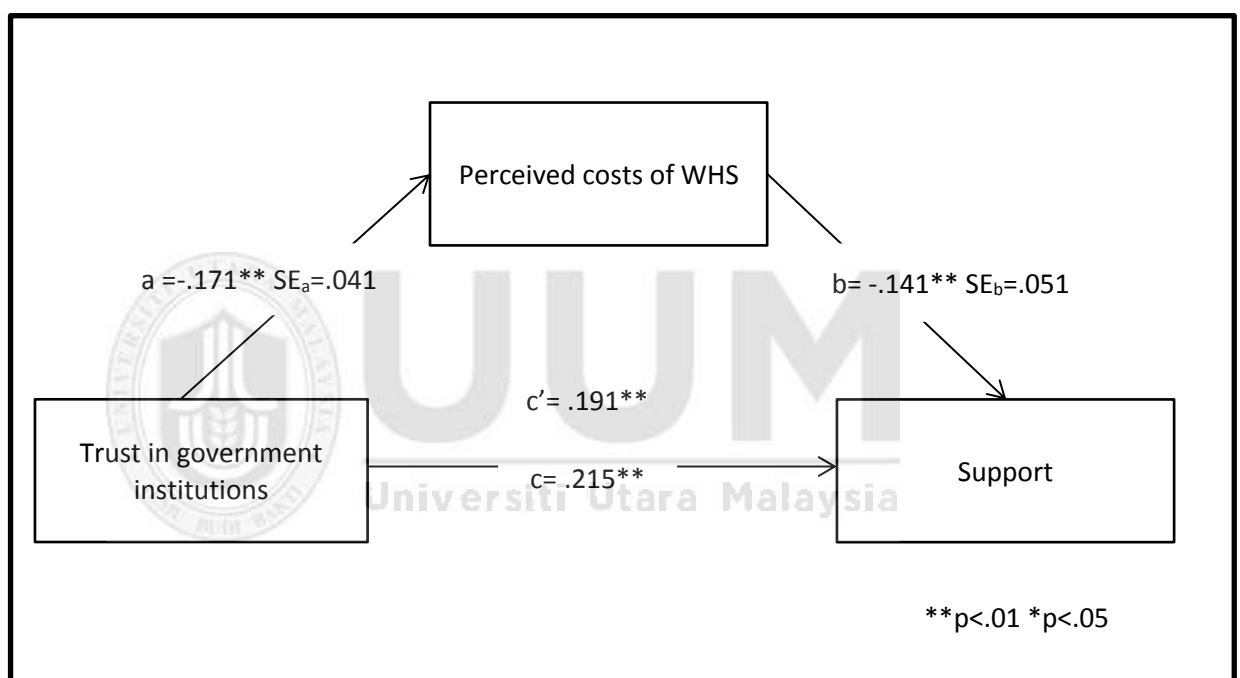
The following is the hypothesis for the above mediating role:

H8b: Perceived costs of WHS mediate the relationship between trust in government institutions and support for sustainable tourism development

The linear regression analysis revealed that path c has significant positive relationship ( $\beta=.215$ ,  $t=5.214$ ,  $p<.01$ ), thus supporting the first requirement. Meanwhile path a shows a significant negative relationship ( $\beta=-.171$ ,  $t=-4.218$ ,  $p<.01$ ). Path b established significant negative relationship ( $\beta=-.141$ ,  $t=-2.783$ ,  $p<.01$ ). The final step, path c' was analysed to confirm the mediating effect by taking into account the predictive power of path b. The regression analysis indicated that the relationship between trust in government institutions and support for sustainable tourism development was still



significant ( $\beta=.191$ ,  $t=4.567$ ,  $p<.01$ ), but with some reduction in unstandardized coefficient ( $\beta$ ). This suggests that there is a partial mediation of perceived costs of WHS on the relationship between trust in government institutions and support for sustainable tourism development. In order to confirm this partial mediation, a Sobel mediation test was then computed and revealed that it was significant ( $t=2.30439$ ,  $p<.01$ ). In conclusion, there is a partial mediation for the H8b. Figure 4.12 shows the mediating effects of perceived costs of WHS on the above relationship.



*Figure 4.12.* The mediation of perceived costs of WHS between trust in government institutions and support for sustainable tourism development

The regression equation for mediating testing of perceived costs of WHS on the relationship between trust in government institutions and support for sustainable tourism development was also summarized in the following Table 4.32:

Table 4.32

*Summary of Regression Equation Result for the Mediating Role of Perceived Costs of WHS on the Relationship between Trust in Government Institutions and Support for Sustainable Tourism Development*

Independent variables	Dependent variable	Equation	$\beta$	Std. Error
Trust in government institutions	Support	c	.215**	.041
Trust in government institutions	Perceived costs of WHS	a	-.171**	.041
Perceived costs of WHS	Support	b	-.141**	.051
Trust in government institutions	Support	c'	.191**	.042

#### 4.8 Summary

The study has successfully collected and analysed data originated from the responses of respondents towards the distributed questionnaires. From 450 questionnaires, only 401 are useful for further analysis. The analyses carried out in this study were descriptive analysis, factor analysis, correlations, multiple regression, and mediating analysis. In addition, all the basic assumptions for factor analysis, multiple regression, and mediating analysis were fulfilled to ensure the validity of the results. The findings have been mixed, where some of the findings confirmed to the previous studies, while others were in contradictory. Further discussion on the results is presented in the following chapter.

## **CHAPTER FIVE**

### **DISCUSSION**

#### **5.1 Introduction**

This chapter is dedicated to discuss the findings of statistical analysis examining the relationships among the understudy variables. In addition to the discussion of findings, recommendation for future research, implication for policy makers, and limitation of research were also presented.

#### **5.2 Recapitulation of the Main Study's Findings**

The main research objectives were to study how independent variables (i.e. community attachment, community involvement, perceived local economic condition, and trust in government institutions) are related to support for sustainable tourism development. In addition, this study also examined to what extent perceptions towards WHS mediate the relationship between the above independent variables and support for sustainable tourism development. The above relationship is explained using social exchange theory.

The study has managed to analyse the responses from 401 local people residing in Lenggong District. In general, the majority of respondents were very supportive of sustainable tourism development plan. The factor analysis result revealed that perception towards WHS is two-dimensional and named as perceived benefits of WHS and perceived costs of WHS. The Cronbach's alpha for all variables fulfilled the basic

requirement in social science of at least 0.60 in order to be confirmed as reliable construct (Hair et al., 2010).

The regression model indicated that the predictor variables predicted 22.1 percent of variance in support for sustainable tourism development. All except community involvement have significant relationships with the dependent variable. The result for mediating effects have been mixed, where perceived benefits of WHS and perceived costs of WHS partially mediated the relationship between community attachment, trust in government institutions, and support for sustainable tourism development. In addition, perceived benefits of WHS also found to fully mediate the relationship between perceived local economic condition, and support for sustainable tourism development. However, there was no mediation of perceived costs of WHS on the relationship between perceived local economic condition, and support for sustainable tourism development. Likewise, there were no mediation found for both perceived benefits of WHS and perceived costs of WHS on the relationships between community involvement and support for sustainable tourism development.

### **5.3 Discussion of the Findings against Research Questions**

The discussion of research findings are based upon the research questions which in turn reflect the research objectives:

1. What is the relationship between community attachment and support for sustainable tourism development in the WHS area?
2. What is the relationship between community involvement and support for sustainable tourism development in the WHS area?

3. What is the relationship between perceived local economic condition and support for sustainable tourism development in the WHS area?
4. What is the relationship between trust in government institutions and support for sustainable tourism development in the WHS area?
5. To what extent does perception towards WHS designation mediates the relationship between community attachment, community involvement, perceived local economic condition, trust in government institutions, and support for sustainable tourism development?

In order to answer the research questions, this study tested a total of 12 hypotheses using various statistical methods including multiple regressions and mediation test. The hypotheses testing results were summarized in the following table:

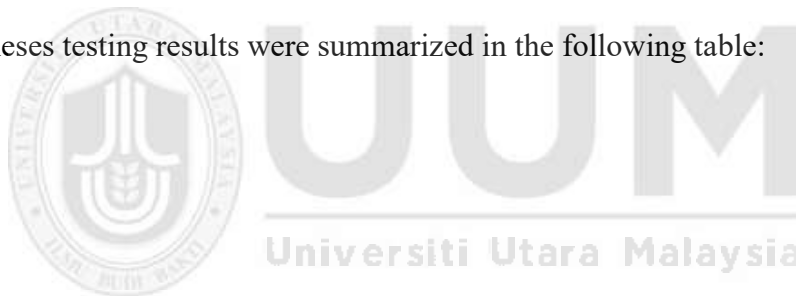


Table 5.1

*Summary of Results from Hypotheses Testing*

<b>Hypotheses</b>	<b>Results</b>
H1: There is a significant relationship between community attachment and support for sustainable tourism development.	Supported
H2: There is a significant relationship between community involvement and support for sustainable tourism development.	Not supported
H3: There is a significant relationship between perceived local economic condition and support for sustainable tourism development.	Supported
H4: There is a significant relationship between trust in government institutions and support for sustainable tourism development.	Supported
H5a: Perceived benefits of WHS mediate the relationship between community attachment and support for sustainable tourism development	Partial mediation
H5b: Perceived costs of WHS mediate the relationship between community attachment and support for sustainable tourism development	Partial mediation
H6a: Perceived benefits of WHS mediate the relationship between community involvement and support for sustainable tourism development	No mediation
H6b: Perceived costs of WHS mediate the relationship between community involvement and support for sustainable tourism development	No mediation
H7a: Perceived benefits of WHS mediate the relationship between perceived local economic condition and support for sustainable tourism development	Full mediation
H7b: Perceived costs of WHS mediate the relationship between perceived local economic condition and support for sustainable tourism development	No mediation
H8a: Perceived benefits of WHS mediate the relationship between trust in government institutions and support for sustainable tourism development	Partial mediation
H8b: Perceived costs of WHS mediate the relationship between trust in government institutions and support for sustainable tourism development	Partial mediation

**Research Question 1: What is the relationship between community attachment and support for sustainable tourism development in the WHS area?**

The descriptive results of the study suggests that local residents in Lenggong District were strongly attached to their community. The strong community attachment among respondents was attributed by the fact that the majority were born and raised in Lenggong. According to the literature, residents who were born and raised in the local area will have stronger community attachment than the rest (Lee & Back, 2003; Um & Crampton, 1987). Moreover, the nature of Lenggong which located in rural area contributes towards some extent the strength of community attachment among its residents. This is clearly explained by linear development model, which postulates that rural communities often have close personal relationship, and strong family bonding as compared to those who live in big cities (Kasarda & Janowitz, 1974).

The hypothesis confirms that there is a positive relationship between community attachment and support for sustainable tourism development. This is in line with a number of previous studies (Chen & Chen, 2010; Lee, 2013; Nicholas et al., 2009; Rasoolimanesh et al., 2015). This strong community attachment often leads them to have a positive expectation of tourism (Davis, Allen, & Cosenza, 1988). They believed that tourism industry can contribute to the economic development in their locality. In line with the above, Jurowski et al. (1997) also argued that strongly attached residents tend to have positive attitudes towards tourism's economic and social impacts. More importantly, the finding is also coherent with a number of theoretical models based on social exchange theory developed by previous scholars (Gursoy et al., 2002; Jurowski et al., 1997; Nunko et al. 2010; Rasoolimanesh et al., 2015).

Such strong community attachment also play important roles in shaping preferable behaviour towards sustainable development and preservation of community's characteristics (Adeniran & Akilabi, 2011; Brehm et al., 2004). Adeniran and Akinlabi (2011) asserted that local indigenous were more cultural attached to the heritage sites compared to those who originated from other places. This is in line with Rapport (1977) which stressed that "people's responses to environments partly depend on where they grew up and come from" (p. 317). Thus based on the above arguments, residents' support for sustainable tourism development in Lenggong could be triggered by their concerns about the integrity of heritage resources and the future of local residents.

However, some studies did not share the same results. These studies suggest that residents with strong community attachment viewed tourism as the cause for various negative impacts to the locality including inflations, crimes, overcrowding, pollution and so forth (Banks, 2010; Knollenberg, 2011). In particular, Knollenberg discovered that residents with strongest attachment were very concerned about the negative impacts, thus becoming very reluctant to accept tourism. The above situations explain why some strongly attached residents support tourism, while others oppose it. Nevertheless, this is not the case for Lenggong as tourism is still at very early stage, thus local residents have yet to form substantial negative opinions.

**Research Question 2: What is the relationship between community involvement and support for sustainable tourism development in the WHS area?**

The analysis suggests that there was no significant relationship between community involvement and support for sustainable tourism development. This is in line with the study by Nicholas et al. (2009) which claimed that such relationship failed to exist due



to extremely small number of local residents involved in tourism activities. Similarly in Lenggong, very few residents involved in the decision-making process and the economic activities related to WHS in Lenggong. According to the nomination dossier, only selected head of villagers and key government officers were invited in the local task force for the nomination of Lenggong as WHS (Ministry of Information, Communication, and Culture, 2011). In terms of economic activities, the scale of local involvement in tourism-related businesses that support WHS is still limited at the moment. Thus far, only two main hotels are operating in Lenggong District namely Tasik Raban Resort and Lenggong Rest House both managed by Lenggong District Council that provide accommodation services for tourists visiting Lenggong Archaeological Gallery and other attractions. Others tourism-related businesses are the likes of cafés and restaurants scattered around Lenggong District, in addition to several local stalls selling handicrafts to tourists. However, economic activities are expected to grow once Lenggong Valley started to be known by tourists as WHS destination. In fact, a number of local people are in the process of undergoing training to become heritage guides as a result of increasing number of group tourists (Ministry of Information, Communication, and Culture, 2011). In the future, more facilities will be in place to support tourism activities, this should provide more job opportunity for the local residents.

On the contrary, a study by Rasoolimanesh et al. (2015) at the same site found that resident involvement have significant relationship with positive perceptions and support for tourism development. One of the possible reasons for this outcome, could be due to higher scores on community involvement in comparison to this study. After further analysis, it was discovered that their measurement for community involvement not only

cover involvement in tourism, but also involvement in other local economic activities. Therefore, they managed to record more involvement of local residents compared to this study which strictly measure residents' involvement in tourism and WHS planning and management.

Despite the lack of evidence in this study to claim that residents' involvement influences support for tourism development, author still believe that involving residents in the decision making process may help in convincing them to accept tourism as recommended by other scholars (Aas et al., 2005; Wager, 1995). Such involvement may also attract them to actively participate in tourism-related employments and businesses (Aas et al., 2005; Tosun, 2000). Wager (1995) also proposed that such involvement is able to foster respect and understanding to safeguard protected areas the likes of WHS. Most importantly, protection of WHS will be extremely difficult without the full cooperation and involvement of all stakeholders, especially the local residents.

In general, this current study also contradicted the stakeholder theory which purported that if local people were given opportunity to participate in decision-making and opportunity of development (e.g. tourism), they will likely to establish positive attitudes and consequently support the development (Aas et al., 2005; Bramwell & Sharman, 1999; Donaldson & Preston, 1995; Freeman, 1984; Getz, 1994; Ritchie, 1988). In the same vein, a study by Lee (2013) also in the opinion that community involvement does play significant roles in influencing support for sustainable tourism development. Others recommended that residents' involvement will increase their advocacy in tourism activity (Palmer et al., 2013; Rasoolimanesh et al., 2015). Further comparison with other studies were difficult as many researches using qualitative approach in

investigating community involvement in tourism (Liu, 2006; Nyaupane et al., 2006; Tosun, 2000). Although there were some quantitative studies on community involvement, however, there were mainly descriptive in nature (Tosun, 2006; Wang et al., 2010).

**Research Question 3: What is the relationship between perceived local economic condition and support for sustainable tourism development in the WHS area?**

The analysis indicates an inverse relationship between perceived local economic condition and support for sustainable tourism development. The finding implies that residents who perceived the local economic condition in a poor state or very much in-need of improvement are likely to support sustainable tourism development and tend to perceive tourism positively. This finding is consistent with the result reported by previous studies (Gursoy et al., 2002; Gursoy & Rutherford, 2004).

In addition to that, according to social exchange theory, exchange actors will be willing to enter into an exchange if the benefits of the exchange is favourable. Thus, in this case, respondents perceived that sustainable tourism development in Lenggong could bring more economic activities such as employment and business opportunities to the local area. In fact, the current situation of Lenggong which lacks of economic development triggered residents to put more weight on the benefits tourism development in WHS rather than negative aspects. That is why the negative perceptions towards WHS designation was down played compared to its benefits.

Var et al. (1985, p. 654) further pointed out that “residents in Turkey acknowledge a willingness to put up with some inconvenience in exchange for tourist money”. This

means that residents would be very appreciative of tourism when they are economically depressed despite other negative consequences. This is also normally the case for rural areas, especially the ones that located in remote countryside that are marginally left behind from development compared to urban areas. As mentioned earlier, Lenggong District is a rural area that is highly dependent on traditional resource-based economies. Thus, tourism in rural areas is always seen as an alternative economic activity that could give values to the local residents (Pakurar & Olah, 2008). Tourism is widely known to contribute to the economic development of tourist destinations through job creations, business opportunities, direct investments and so forth (Akkawi, 2010).

On the contrary, residents in highly developed countries such as Japan were found to be somewhat critical about tourism (Jimura, 2010). Tourism industry is sometimes seen as a factor that disintegrates their cultural values and spirit. This argument could be used as an indicator about the role of local economic condition in shaping residents attitudes towards tourism industry especially between developing and developed regions.

**Research Question 4: What is the relationship between trust in government institutions and support for sustainable tourism development in the WHS area?**

Residents in Lenggong have considerably high trust in government institutions which lead them to support for sustainable tourism development. This is in agreement with other studies (Nunkoo et al., 2012; Nunkoo & Ramkissoon, 2011b). What can be concluded here is that, residents that have trust in government institutions will most likely support for sustainable tourism development. This is because, they believe that the government who is in charge of the development will not misuse the power and will develop tourism properly so that the local residents may enjoy its benefits. This is in

line with the theory that claim trust between actors (e.g. residents and government) is fundamental in forming social exchanges between two parties (Cropanzano & Mitchell, 2005). In general, the key understanding from this study is that trust has strong influences in persuading people or organization to enter into an exchange process. To best summarize the above result, a quote from Nye, Zelikow, and King (1997) is very much relevant.

If people believe that government is incompetent and cannot be trusted, they are less likely to provide critical resources. Without critical resources, government cannot perform well, and if government cannot perform, people will become more dissatisfied and distrustful of it. Such a cumulative downward spiral could erode support for democracy as a form of governance (p. 4).

Without trust, it is difficult for the government to develop any area. Heritage tourism especially, requires the involvement and support from local residents. Residents would not support tourism development without trust. Thus, it is importance for the government to develop trust amongst local residents to ensure the plan will be widely accepted by the masses. Likewise in the case of Lenggong, local residents will be more supportive of sustainable tourism development when they trust the government about the benefits they get from the plan.

In addition, trust in government is also known to have close relationship with the benefits and costs of sustainable tourism development as postulated by social exchange theory (Blau, 1964). This is empirically proven in this study, where trust in government correlates positively with perceived benefits of WHS, and at the same time establishes negative correlation with perceived costs of WHS. In other words, if the outcomes of the exchange process perceived to be beneficial, the residents will develop trust towards the government. Thus, trust in government could be reflected by the success of

government policy in developing and managing an area. On the other hand, poorly formulated policy that it create dissatisfaction among the residents may lead to distrust and cynicism.

**Research Question 5: To what extent does perception towards WHS designation mediate the relationship between community attachment, community involvement, perceived local economic condition, trust in government institutions, and support for sustainable tourism development?**

As mentioned earlier in the thesis, perception towards WHS is represented by two dimensions namely; perceived benefits of WHS designation and perceived costs of WHS designation. In the case of Lenggong Valley, residents rated the benefits of WHS highly as compared to the costs. Residents in general have high expectation for the designation of WHS in terms of the benefits the local community will gain in the future. Local residents perceived the designation of Lenggong Valley as WHS will benefits the future generations, protect valuable archaeological artefacts, being part of community that rich with culture and history, improve local infrastructure and so forth. Meanwhile, local residents did not really view the costs of WHS to be threatening. They in general agreed that very little negative impacts would occur to the local community as a result of mandatory conservation of Lenggong Valley as WHS.

In addition to the above, this study also found a significant positive relationship between perceived benefit of WHS and support for sustainable tourism development that confirmed with other studies (Gursoy et al. 2009; Gursoy et al., 2002; Gursoy & Rutherford, 2004; Perdue et al., 1990; Prentice, 1993; Rasoolimanesh et al., 2015; Ritchie, 1988; Vargas-Sánchez et al., 2009). On the other hand, perceived cost of WHS

established negative relationship with support for sustainable tourism development as expected. This finding is in the agreement with previous studies (Gursoy et al., 2009; Perdue et al., 1990; Prentice, 1993; Rasoolimanesh et al., 2015; Vargas-Sánchez et al., 2009), however contradicted a few (Gursoy, 2002; Gursoy & Rutherford, 2004). Gursoy (2002) for example, only managed to confirm the relationship between perceived benefits with support, but not perceived costs. One of the possible explanations suggested was that region with poor economic condition will weight positive impacts heavily than the negative impacts.

Therefore, the above findings confirmed the principles explained in social exchange theory which postulates that people will enter into an exchange when they weight the benefits of tourism more than the costs of tourism (Ap, 1992; Perdue et al., 1990; Vargas-Sánchez et al., 2009). According to Searle (1991), it is the rationality of behaviour that drives people to behave in certain ways. People always act based on rewards, material or psychological, without it there will be no exchange. Thus, people tend to act in the way that will produce these benefits and in turn fulfil their needs in the process. In this study, residents who perceive WHS positively will likely to support sustainable tourism development than those who perceive it negatively.

In addition to above relationships, perceived benefit of WHS was found to play a partial mediating role on the relationship between community attachment and support for sustainable tourism development which is in agreement with previous studies (Lee, 2013; Nicholas et al. 2009). Similarly, perceived cost of WHS also played a partial mediating role on the relationship between community attachment and support for sustainable tourism development. This however contradicted the study by Lee (2013).

Lee only confirmed a mediating role of perceived benefits on the above relationship, but did not find any mediating role of perceived costs.

The analysis also found that perceived benefits of WHS established a full mediating role on the relationship between perceived local economic condition and support for sustainable tourism development. This indicates that the relationship between perceived local economic condition and support for sustainable tourism development is greatly influenced by a mediator, the perceived benefits of WHS. However, perceived costs of WHS did not establish any mediating role between perceived local economic condition and support for sustainable tourism development. Unfortunately, these mediating roles could not be compared with other studies as there was none found in the literature. Thus, this contributes to a new finding in the tourism attitudes studies. In conclusion, Lenggong's residents although agreed that the local economy is in a poor state, but their support for sustainable tourism development is always dependent on their perceptions, especially the benefits aspects. This contradicts the findings by Var et al. (1985), where residents with poor economic state were supportive of tourism albeit the negative consequences.

Both perceived benefits and perceived costs of WHS were also found to partially mediate the relationship between trust in government institutions and support for sustainable tourism development. Although previous studies have managed to prove the direct relationship between trust in government and support for sustainable tourism development (Nunkoo & Ramkissoon 2011a; 2011b), however none have confirmed the mediating roles of perceived benefits and perceived costs of WHS on the above



relationship. Therefore, this is another new insight that contributes to the body of knowledge in this area of investigation.

In the contrary, both perceived benefits and perceived cost of WHS did not establish any mediating role on the relationship between community involvement and support for sustainable tourism development similar to the study by Nicholas et al. (2009). This result however was not in the agreement with the study by Lee (2013). Lee has successfully confirmed the mediating role of perceived benefits on the relationship between community involvement and support for sustainable tourism development. The absence of mediating roles on these relationships was because community involvement did not has any significant relationship with support for sustainable tourism development, thus disobeying the first rule of mediation analysis by Baron and Kenny (1986). The first rule stated that in order to establish mediation role, the predictor variable (i.e. community involvement) must regresses significantly with the outcome variable (i.e. support for sustainable tourism development).

The results of the above mediating tests suggest that some predictors or independent variables (i.e. community attachment, perceived local economic condition, trust in government institutions) did not directly explain the variance in support for sustainable tourism development. In fact, these relationships towards some extent were partially or fully explained by the third factor (i.e. perceived benefits of WHS and perceived costs of WHS).

## **5.4 Research Contribution**

The contribution of this study is discussed from both theoretical and managerial perspectives in the following sections.

### **5.4.1 Theoretical Contribution**

This study contributes to the literature on tourism attitudes at WHS in many aspects. Up to now, studies on the perceptions of WHS have been largely descriptive (Adeniran & Akinlabi, 2011; Besculides et al. 2002; Jimura, 2010). This study goes beyond that by investigating how the perceptions towards WHS designation affect support for sustainable tourism development. On top of that, existing studies on perceptions of WHS concentrate merely on the benefits with very little attention on the costs associated with WHS designation (Besculides et al., 2002; Nicholas et al., 2009). As discussed earlier, the impacts of WHS designation are not only confined to the outcomes of tourism development, but also related to the effects of mandatory conservation on the local residents' lives. At the end, this study has managed to develop and test both dimensions of the perceptions of WHS (i.e. perceived benefits of WHS and perceived costs of WHS).

In addition to identification of dimensions that capture the benefits and costs of WHS designation, this study has also confirmed the relationship between independent variables and support for sustainable tourism development. Community attachment, perceived local economic condition, and trust in government institutions have been found to have a significant relationship with support for sustainable tourism development. This provides additional empirical evidence to the literature on these aspects. For example, the results of past studies on the relationship between community

attachment, community involvement, and support for tourism have been inconsistent, thus requiring new evidence (Gursoy et al., 2002; Jurowski et al., 1997; McCool & Martin, 1994; Lee, 2013; Nicholas et al., 2009; Um & Crampton, 1987). In addition, studies examining the relationship between community involvement, perceived local economic condition, trust in government institutions, and support for tourism development have been largely neglected except by a few (Gursoy et al., 2009; Gursoy & Rutherford, 2004; Lee, 2013; Nicholas et al., 2009). In fact, the role of trust in explaining support for tourism has been very recent (Nunkoo et al., 2012; Nunkoo & Ramkissoon, 2011b). Identifying such relationships especially in the context of developing countries the likes of Malaysia may provide useful information.

Besides the above contribution, this study also provide empirical evidence that support the proposition by several scholars who claimed that the exchange process will likely to occur when there is trust between the exchange actors (Blau, 1964; Kayat, 2002; Morgan & Hunt, 1994; Nunkoo et al., 2012; Sheppard & Sherman, 1998). The results of this study confirmed that trust correlates positively with support for sustainable tourism development. This empirical finding strengthens the application of social exchange theory in tourism attitudes studies.

Another important contribution of this study is related to the testing of the mediating effects of perceived benefits of WHS, and perceived costs of WHS. The results confirmed that perceived benefits of WHS, and perceived costs of WHS have mediated the relationships between community attachment, local economic condition, trust in government institutions, and support for sustainable tourism development. This indicates that, there were third factors that play major roles in explaining the variance in

support for sustainable tourism development. Such findings may solve some of the inconsistencies issues found in the past studies (Gursoy et al., 2002; Gursoy & Rutherford, 2004; Lee, 2013; Jurowski et al., 1997; McCool & Martin, 1994). In summary, this study contributes to the development of a newly revised theoretical framework founded upon social exchange theory, especially with the inclusion of new variables such as perceived local economic, and trust in government institutions.

#### **5.4.2 Managerial Implications**

This study provides the policy makers the crucial input with regards to local residents' reactions towards the proposed sustainable tourism development in a WHS area based on bottom-up approach. In line with that, a number of managerial implications are presented as follows:

##### ***Managerial Implication 1:***

The results of this study indicates that the majority of residents were very supportive of sustainable tourism development. Hence, it is an indicator for residents' readiness to accept and participate in sustainable tourism development that will subsequently improve their socio-economic status. In addition to that, support also reflects residents' desirable attitudes and behaviours towards the conservation and proper management of heritage resources in their area. As a result, the government will be able to proceed with sustainable tourism development plan in Lenggong without substantial objections.

##### ***Managerial Implication 2:***

Based on the analysis, local residents in general were found to be strongly attached to the community. This means that they have an extensive and intimate network of

kindship and friendship throughout the community. In addition to that, strong community attachment also reflects their loyalty and aspirations towards the future of Lenggong. Hence, the government could recruit this group to convince others about the importance of developing sustainable tourism in Lenggong through their extensive networks.

#### ***Managerial Implications 3:***

This study found that very limited number of residents were actively involved in the decision-making process and related economic activities in Lenggong WHS. As widely accepted, one of the key elements in sustainable tourism development is local community involvement. Active involvement could also promote the protection of heritage resources and significantly improve socio-economic conditions of local residents. Therefore, it is crucial for the government to devise a mechanism to increase residents' participation in tourism planning and development at the WHS. For example, a more representative of local residents should be appointed to join the local heritage tourism committee. In addition, job opportunities such as heritage tour guides should also be given to the local residents rather than depend solely on external sources.

#### ***Managerial Implications 4:***

The majority of residents agreed that more job and business opportunities should be created in Lenggong. This in turn reflect the comparatively poor local economic conditions. In fact, Lenggong is heavily dependent on traditional resource-based economic activities such as agriculture, logging, and mining. Thus, the residents were pretty much concerned about their future generations when it comes to issues related job opportunities. Government can actually take this responses to convince the people

about the roles of tourism in developing the local economies. In addition, residents who were concerned about the local economic conditions will be more open and willing to participate in economic activities associated with tourism.

***Managerial Implications 5:***

The results suggest that residents have high trust in government institutions who responsible for the development of tourism in WHS. Trust is also believed to promote cooperation, instill support, shape attitudes, and strengthen relationships between residents and the government. Social exchange theory postulates that trust can promote long lasting exchange relationship. Thus, in this case, the long lasting relationship could be in the forms of cooperation and commitment to support the sustainable tourism development policy formulated by the government. Moreover, the trust and confidence that people have towards the government could make tourism plan and policy as legitimate and widely accepted.

***Managerial Implications 6:***

The majority of residents perceived the designation of Lenggong Valley as WHS in a positive manner. This means that, the objective of developing WHS as a tourism destination by emphasizing the benefit for local people as stipulated in the World Heritage Convention has been achieved. Such positive reactions enable government to develop sustainable tourism in the area effectively and without serious objection. Furthermore, this responses also provide the government with the much needed feedbacks to be incorporated in the formulation of Lenggong Valley WHS Management Master Plan. Such approach enables the local residents to voice their concerns and expectation of WHS designation and the consequent sustainable tourism development.

## **5.5 Delimitations**

The main restriction of this study is pertaining to the subject of investigation which focuses on one stakeholder group – the local residents. Experts argued that successful tourism development must obtain full support from different stakeholder groups including tourism developers (Gunn, 1994); community groups (Jamal & Getz, 1995); the private sectors (Bramwell & Sharman, 1999; Jamal & Getz, 1995); and the community leaders (Al-Gahuri, 2014).

The selection of variables in this study may also limit its comprehensiveness. This study focuses on only six variables that influence support for sustainable tourism development in the context of WHS. The variables investigated were community attachment, community involvement, local economic condition, trust in government institutions, perceived benefits of WHS, and perceived costs of WHS. Other variables that may explain the variance in support for sustainable tourism development need to be included in future research endeavour.

This study was also a cross-sectional in nature, thus only representing a snapshot of the condition occurring during that period. Studies on attitudes would provide a more meaningful and comprehensive information if carried out over long periods of time, or what so-called longitudinal studies. This is also true as residents' reactions to tourism development change over time as suggested by Butler's tourism area life cycle model.

## **5.6 Limitations**

The main limitation of this study was related to the truthfulness of responses given by the residents during data collection, which is beyond the control of researcher. This bias

is related to the factor of social desirability which may threaten the validity of the result of this study. When people know that they are being observed, they have the tendency to behave in a manner that they believe to be socially desirable and acceptable. Thus, in this case, respondents may have adjusted their view about WHS designation and tourism development in order to be seen as 'correct' by the society and the authority. The majority of respondents responded positively about the designation of Lenggong Valley as WHS and the development of tourism in their area.

Another limitation was linked to the analytical methods used to treat the data. For decades, multiple-regression has been recognised as the tool that capable of predicting the strength of relationship between the understudy variables. In fact, it produces extremely similar results in terms of regression coefficient (or maximum likelihood) as compared to the more advanced analytical method such as Structural Equation Model (SEM) in LISREL (Hayes, 2013). However, the main weakness of multiple-regression was attributed to its inability to take into consideration the random measurement error. Random measurement error which is estimated in SEM refers to factors or conditions that affect the measurement of the variable across sample. Various conditions such as moods and other emotions for example have been found to inflate or deflate responses to questionnaire.

### **5.7 Suggestions for Future Research**

This study can be replicated to other WHS of different nature for example Kinabalu National Parks, Mulu National Parks, Melaka and Georgetown Straits Settlement. By doing this, it is possible to understand how local people perceive and react to tourism development in the context of WHS. However, the part of the instrument especially the



ones related to perceived impacts must be readjusted as there are no two places share identical impact situations due to various socio-economic and geographic factors.

Future studies should also explore other potential variables that might influence support for sustainable tourism development such as occupational identity and gender identity. According to Nunko et al. (2010), people with strong resource-based occupational identity have higher tendency to object alternative economic sectors including tourism. Meanwhile a study by Petrezelka, Krannich, Brehm and Trentelman (2005), gender identity was argued to shape attitudes towards tourism development differently. Studies testing the above variables were very limited and warrant further investigation.

The scope of investigation in this study that focuses solely on local residents should be expanded to include other groups of stakeholders the likes of local businesses, tourism operators, political leaders, non-governmental organisations (NGOs), and authorities. Besides that, a single data collection method that focused on self-administered questionnaires can be widen to covers other methods such as semi-structured interview and focus group that may be more relevance to the targeted respondents.

Last but not least, a longitudinal study at Lenggong Valley WHS can provide more useful understanding about the changes in local people reaction over time. This study was undertaken at relatively early stage of Butler's destination life cycle, thus very little negative impacts were recorded from the local residents. Such longitudinal study is required as experts believe a long and continuing support from the local residents is crucial in attaining sustainable tourism development especially in the case of WHS.

## **5.8 Summary**

This study has managed to answer all the research questions pertaining to the relationships between the under study variables; community attachment, community involvement, perceived local economic condition, trust in government institutions, perceived benefits of WHS, perceived costs of WHS, and support for sustainable tourism development. Many of the hypotheses have been confirmed except the relationships concerning community involvement, which were not supported by the analysis.

In general, local residents in Lenggong Valley perceived positively the WHS designation and in consequence were very supportive of proposed sustainable tourism development. This is a good sign for the authority that is responsible for the future planning and development of Lenggong Valley as WHS. Managing WHS in sustainable manner would be very difficult without full support from the stakeholders as evident in the past (Maikhuri et al, 2001; Nicholas et al., 2009; Sutawa, 2012).

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## APPENDIX A

### Survey Questionnaire in English



# UUM COLGIS

College of Law, Government and International Studies

### SURVEY QUESTIONNAIRE

Dear sir/madam,

I am Ahmad Edwin Mohamed, a Doctorate student from Universiti Utara Malaysia is conducting a research entitled "Residents' Support for Sustainable Tourism Development at a World Heritage Site: A Case of Lenggong Valley". You are selected from a random sample of residents in Lenggong District for this survey. Only a small sample of people is being surveyed, therefore your answers are very important.

Your answers will also be treated as confidential and will only be used for academic purposes.

Thank you for your cooperation.

Yours sincerely,

Ahmad Edwin Mohamed

School of Tourism, Hospitality & Environmental Management

UUM College of Law, Government & International Studies

Universiti Utara Malaysia

06010 Sintok, Kedah

## PART A: COMMUNITY ATTACHMENT

To what extent do you agree with the following statements? Please circle the score below:

Items	Scale						
	strongly disagree						strongly agree
1. I am very attached to this community	1	2	3	4	5	6	7
2. I feel like I belong to this community	1	2	3	4	5	6	7
3. The friendships and associations that I have with other people in this community mean a lot to me	1	2	3	4	5	6	7
4. If the people in the community were planning something, I'd think of it as something we were doing rather than they were doing	1	2	3	4	5	6	7
5. If I needed advice about something, I could go to someone in this community	1	2	3	4	5	6	7
6. I think I agree with most people in this community about what is important in life	1	2	3	4	5	6	7
7. I feel loyal to the people in this community	1	2	3	4	5	6	7
8. I plan to remain a residents of this community for a number of years	1	2	3	4	5	6	7
9. I'd like to think of myself as similar to the people who live in this community	1	2	3	4	5	6	7
10. The future success of this community is very important to me	1	2	3	4	5	6	7
11. Given the opportunity, I'd move out of this community	1	2	3	4	5	6	7

## PART B: COMMUNITY INVOLVEMENT

To what extent do you involve in the following activities? Please circle the score below:

Items	Scale						
	not at all						highly involved
1. My involvement with Lenggong Valley World Heritage Site	1	2	3	4	5	6	7
2. My involvement in the decision-making about the local development	1	2	3	4	5	6	7
3. My involvement in a committee that discuss the development and future of Lenggong as a tourism destination	1	2	3	4	5	6	7
4. My involvement in occupations related to local tourism services (e.g. hotels, homestay, restaurants, tour guides, taxi)	1	2	3	4	5	6	7

## PART C: PERCEIVED STATE OF LOCAL ECONOMY

To what extent do you agree with the following statement? Please circle the score below:

Items	Scale						
	strongly disagree						strongly agree
1. Government should help to create more jobs in Lenggong	1	2	3	4	5	6	7
2. Lenggong desperately needs more job opportunities	1	2	3	4	5	6	7
3. Lenggong needs more job opportunities to stop young people from moving away to cities	1	2	3	4	5	6	7
4. Lenggong desperately need more business opportunities in the local area	1	2	3	4	5	6	7

#### PART D: TRUST IN GOVERNMENT INSTITUTIONS

To what extent do you agree with the following statements? Please circle the score below:

Items	Scale						
	strongly disagree						strongly agree
1. I can generally trust the decision made by government institutions	1	2	3	4	5	6	7
2. I can generally trust the people who run government institutions to do what is right	1	2	3	4	5	6	7
3. Government institutions can be trusted to do what is right without having to constantly check on them	1	2	3	4	5	6	7

#### PART E: PERCEPTIONS TOWARDS LENGGONG VALLEY WORLD HERITAGE SITE

To what extent do you agree with the following statements? Please circle the score below:

Items	Scale						
	strongly disagree						strongly agree
<u>Perceived Benefits</u>							
1. The protection of World Heritage Site benefits future generation	1	2	3	4	5	6	7
2. It is important to protect the World Heritage Site for the survival of various archaeological artefacts	1	2	3	4	5	6	7
3. Being part of community rich in culture and history	1	2	3	4	5	6	7
4. Improving community's physical infrastructure	1	2	3	4	5	6	7
5. Offer recreational activities for the locals	1	2	3	4	5	6	7
6. Growth of local cottage industries	1	2	3	4	5	6	7
7. Tourism development potentials	1	2	3	4	5	6	7
8. Outsiders/tourists arrivals to the area	1	2	3	4	5	6	7
9. Recognition as World Heritage Site	1	2	3	4	5	6	7



<u>Perceived Costs</u>							
10. The World Heritage Site does not provide jobs for people in our community	1	2	3	4	5	6	7
11. The World Heritage Site has created problems in my life	1	2	3	4	5	6	7
12. The World Heritage Site is too large and take up too much land space	1	2	3	4	5	6	7
13. Restrictions on other economic activities (e.g. agriculture, mining, logging)	1	2	3	4	5	6	7
14. Restrictions on future development potential (housing area, commercial area, industrial area etc.)	1	2	3	4	5	6	7

#### **PART F: SUPPORT FOR SUSTAINABLE TOURISM DEVELOPMENT**

The following statement is about your level of support towards tourism development in Lenggong. Please circle the score below:

Items	Scale						
	strongly oppose ←						→ strongly support
1. Development of community-based tourism initiatives	1	2	3	4	5	6	7
2. Local participation in tourism planning and development	1	2	3	4	5	6	7
3. Cooperation and unity in tourism planning and development	1	2	3	4	5	6	7
4. Promotion of heritage education and conservation	1	2	3	4	5	6	7
5. Commitment in adhering to the regulations & guidelines to maintain the World Heritage Site	1	2	3	4	5	6	7
6. The designation of Lenggong Valley as UNESCO's World Heritage Site	1	2	3	4	5	6	7
7. Support any penalty imposed to those who damage the World Heritage Site	1	2	3	4	5	6	7
8. Don't care about development activities that jeopardize the integrity of World Heritage Site	1	2	3	4	5	6	7

## PART F: SOCIO-DEMOGRAPHIC DATA

The following statement is about your personal background. Please tick the appropriate box.

1. What is your age?

21-30	[ ]	31-40	[ ]
41-50	[ ]	51-60	[ ]
Over 60	[ ]		

2. What is your gender?

Male	[ ]	Female	[ ]
------	-----	--------	-----

3. Your ethnicity?

Malay	[ ]	Chinese	[ ]	Indian	[ ]
Thais	[ ]	Others, please specify:			

4. What is your highest level of education?

No schooling	[ ]	Primary school	[ ]
Secondary school	[ ]	Undergraduate	[ ]
Post graduate	[ ]	Others, please state:	

5. What is your area of occupation? (*You may tick more than one*)

Agriculture	[ ]	Aquaculture	[ ]
Mining/quarrying	[ ]	Logging	[ ]
Guano collecting	[ ]	Government	[ ]
Business	[ ]	Hotel/motel	[ ]
Restaurant operators	[ ]	Homestay	[ ]
Local cottage industry	[ ]	Recreation services	[ ]
Museum/archaeology	[ ]	Retail business	[ ]
Housewife	[ ]	Student	[ ]
Others, please state:			

6. What is your monthly income?

No income	[ ]	Below RM1,000	[ ]
RM1,001 – 2,000	[ ]	RM2,001 – 3,000	[ ]
RM3,001-4,000	[ ]	RM4,001-5,000	[ ]
Above RM5,001	[ ]		

7. How many years have you lived in Lenggong?

Less than 5 years	[ ]	6-10 years	[ ]
11-20 years	[ ]	21-30 years	[ ]
More than 30 years	[ ]		

8. Were you born in Lenggong?

Yes [     ]     No [     ]

9. State the name of your kampong or residential area?

\_\_\_\_\_

10. Have you ever visited the Lenggong Archaeological Museum?

Yes [     ]     No [     ]

11. Have you ever visited the archaeological sites?

Yes [     ]     No [     ]



## APPENDIX B

### Survey Questionnaire in Malay



# UUM COLGIS

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### BORANG SOAL-SELIDIK

Tuan/Puan yang dihormati,

Saya Ahmad Edwin Mohamed, pelajar Doktor Falsafah daripada Universiti Utara Malaysia (UUM) sedang menjalankan kajian berkenaan “Sokongan Penduduk Tempatan terhadap Pembangunan Pelancongan Lestari di Tapak Warisan Dunia: Satu Kajian di Lembah Lenggong. Anda telah dipilih secara rawak untuk menyertai sesi soal-selidik kajian ini.

Maklumbalas anda terhadap soal-selidik ini adalah amat penting untuk kajian dan terpelihara dari segi kerahsiaannya.

Pihak UUM mengucapkan ribuan terima kasih atas kesudian anda menyertai sesi soal-selidik ini.

Yang benar,

Ahmad Edwin Mohamed  
Pusat Pengajian Pengurusan Pelancongan, Hospitaliti & Alam Sekitar  
Kolej Undang-undang, Kerajaan & Pengajian Antarabangsa  
Universiti Utara Malaysia  
06010 Sintok, Kedah

## BAHAGIAN A: HUBUNGAN DENGAN MASYARAKAT

Sejauh mana anda bersetuju dengan kenyataan di bawah. Bulatkan maklumbalas anda berdasarkan skala berikut:

Item	Skala						
	sangat tak setuju						sangat setuju
1. Saya sangat akrab dengan penduduk di Lenggong	1	2	3	4	5	6	7
2. Lenggong sangat dekat di hati saya	1	2	3	4	5	6	7
3. Hubungan persahabatan dengan penduduk di Lenggong amat bermakna buat saya	1	2	3	4	5	6	7
4. Saya rasa kerja-kerja kemasyarakatan yang dilaksanakan di Lenggong merupakan sebahagian daripada tugas saya	1	2	3	4	5	6	7
5. Sekiranya saya memerlukan nasihat, ramai orang di Lenggong boleh membantu saya	1	2	3	4	5	6	7
6. Saya mempunyai pandangan tentang erti kehidupan yang sama seperti kebanyakan penduduk lain di Lenggong	1	2	3	4	5	6	7
7. Saya rasa setia dengan penduduk di Lenggong	1	2	3	4	5	6	7
8. Saya bercadang untuk menetap di Lenggong untuk tempoh yang lama	1	2	3	4	5	6	7
9. Saya rasa diri saya mempunyai banyak persamaan dengan penduduk lain di Lenggong	1	2	3	4	5	6	7
10. Kejayaan masa depan Lenggong adalah sangat penting untuk diri saya	1	2	3	4	5	6	7
11. Sekiranya terdapat peluang di tempat lain, saya ingin berpindah dari Lenggong	1	2	3	4	5	6	7

## BAHAGIAN B: PENGLIBATAN PENDUDUK

Sejauh mana anda terlibat dengan aktiviti di bawah. Bulatkan maklumbalas anda berdasarkan skala berikut:

Item	Skala						
	tiada langsung						sangat banyak
1. Saya terlibat dgn tapak warisan dunia Lenggong	1	2	3	4	5	6	7
2. Saya terlibat dalam membuat keputusan tentang hal-ehwal pembangunan setempat	1	2	3	4	5	6	7
3. Saya terlibat dalam jawatankuasa yang membincangkan pembangunan dan masa depan Lenggong sebagai destinasi pelancongan warisan	1	2	3	4	5	6	7
4. Saya terlibat dalam pekerjaan yang ada kaitan dengan perkhidmatan pelancongan (spt: homestay, hotel, restoran, pemandu pelancong, muzium, teksi)	1	2	3	4	5	6	7

## BAHAGIAN C: KEADAAN EKONOMI SETEMPAT

Sejauh mana anda bersetuju dengan kenyataan di bawah. Bulatkan maklumbalas anda berdasarkan skala berikut:

Item	Skala						
	sangat tak setuju						sangat setuju
1. Kerajaan perlu membantu mewujudkan lebih banyak peluang pekerjaan	1	2	3	4	5	6	7
2. Lenggong sangat perlukan lebih banyak peluang pekerjaan	1	2	3	4	5	6	7
3. Lenggong perlukan lebih banyak peluang pekerjaan untuk menghalang penghijrahan pemuda ke bandar	1	2	3	4	5	6	7
4. Lenggong sangat perlukan lebih banyak peluang perniagaan	1	2	3	4	5	6	7

#### BAHAGIAN D: KEPERCAYAAN TERHADAP INSTITUSI KERAJAAN

Sejauh mana anda mempercayai institusi kerajaan. Bulatkan maklumbalas anda berdasarkan skala berikut:

Item	Skala						
	tiada langsung						sangat percaya
1. Saya mempercayai keputusan yang dibuat oleh pihak kerajaan adalah yang terbaik.	1	2	3	4	5	6	7
2. Saya mempunyai kepercayaan terhadap orang yang bertanggungjawab dalam kerajaan untuk melakukan apa yang terbaik.	1	2	3	4	5	6	7
3. Saya percaya pihak kerajaan boleh membuat sesuatu betul tanpa perlu sentiasa memantau.	1	2	3	4	5	6	7

#### BAHAGIAN E: PANDANGAN TERHADAP TAPAK WARISAN DUNIA LENGGONG

Sejauh mana anda bersetuju dengan kenyataan di bawah. Bulatkan maklumbalas anda berdasarkan skala berikut:

Item	Skala						
	sangat tak setuju						sangat setuju
<u>Kebaikan</u>							
1. Tapak warisan dunia perlu dilindungi untuk faedah generasi akan datang	1	2	3	4	5	6	7
2. Pemuliharaan tapak warisan dunia penting demi melindungi bahan sejarah yg terdapat di dalamnya	1	2	3	4	5	6	7
3. Bangga menjadi sebahagian komuniti yang kaya dengan warisan sejarah	1	2	3	4	5	6	7
4. Penambahbaikan infrastruktur komuniti di Lenggong	1	2	3	4	5	6	7
5. Tapak warisan dunia memberi peluang aktiviti rekreasi untuk penduduk tempatan	1	2	3	4	5	6	7
6. Potensi pembangunan industri kecilan kampung	1	2	3	4	5	6	7
7. Potensi pembangunan pelancongan setempat	1	2	3	4	5	6	7
8. Kedatangan pelancong dan orang luar ke tapak warisan dunia Lenggong	1	2	3	4	5	6	7
9. Pengiktirafan Lenggong sebagai	1	2	3	4	5	6	7

Tapak Warisan Dunia oleh UNESCO							
<u>Keburukan</u>							
10. Tapak warisan dunia tidak memberi peluang pekerjaan kepada penduduk Lenggong	1	2	3	4	5	6	7
11. Tapak warisan dunia mendatangkan masalah kepada saya	1	2	3	4	5	6	7
12. Kawasan tapak warisan dunia terlalu luas & banyak melibatkan tanah penduduk	1	2	3	4	5	6	7
13. Tapak warisan dunia menghalang aktiviti ekonomi lain ( <i>spt pertanian, penternakan dll</i> )	1	2	3	4	5	6	7
14. Tapak warisan dunia menghalang potensi pembangunan masa hadapan di Lenggong ( <i>spt projek perumahan, kawasan komersial dll</i> ).	1	2	3	4	5	6	7

#### BAHAGIAN F: SOKONGAN TERHADAP PEMBANGUNAN PELANCONGAN

Sejauh mana anda menyokong kenyataan di bawah. Bulatkan maklumbalas anda berdasarkan skala berikut:

Item	Skala						
	sangat tak sokong						sangat sokong
1. Usaha pembangunan pelancongan berteraskan masyarakat setempat	1	2	3	4	5	6	7
2. Penglibatan masyarakat setempat dalam perancangan dan pembangunan pelancongan	1	2	3	4	5	6	7
3. Kerjasama dan perpaduan penduduk dalam perancangan dan pembangunan pelancongan	1	2	3	4	5	6	7
4. Usaha ke arah program pendidikan dan pemuliharaan warisan	1	2	3	4	5	6	7
5. Komitment untuk mematuhi segala peraturan / undang-undang berkenaan pemuliharaan tapak warisan dunia	1	2	3	4	5	6	7
6. Pengiktirafan Lenggong sebagai tapak warisan dunia UNESCO	1	2	3	4	5	6	7



7. Denda / penalti yang dikenakan ke atas sesiapa yang merosakkan tapak warisan	1	2	3	4	5	6	7
8. Tidak kisah tentang aktiviti pembangunan yang membawa kepada kerosakan tapak warisan	1	2	3	4	5	6	7

## BAHAGIAN F: LATAR-BELAKANG PENDUDUK

Sila tanda [ ✓ ] di kotak yang berkenaan:

### 1. Umur anda?

21-30 [     ]                      31-40 [     ]  
 41-50 [     ]                      51-60 [     ]  
 Lebih 60 [     ]

### 2. Jantina?

Lelaki [     ]                      Perempuan [     ]

### 3. Kumpulan etnik?

Melayu [     ]                      Cina [     ]                      India [     ]  
 Siam [     ]                      Lain-lain, nyatakan: \_\_\_\_\_

### 4. Tahap pendidikan tertinggi anda?

Tidak bersekolah [     ]                      Sekolah rendah [     ]  
 Sekolah menengah [     ]                      Siswazah [     ]  
 Pasca siswazah [     ]                      Lain-lain, nyatakan: \_\_\_\_\_

### 5. Jenis bidang pekerjaan anda? (boleh tanda lebih daripada satu)

Pertanian [     ]                      Perikanan [     ]  
 Kuari/perlombongan [     ]                      Pembalakan [     ]  
 Mengumpul baja tahi kelawar [     ]                      Kerajaan [     ]  
 Peniaga [     ]                      Hotel/motel [     ]  
 Pengusaha restoran [     ]                      Homestay [     ]  
 Industri produk tempatan [     ]                      Khidmat rekreasi [     ]  
 Muzium/tapak arkeologi [     ]                      Perniagaan runcit [     ]  
 Suri rumah [     ]                      Pelajar [     ]  
 Lain-lain, nyatakan: \_\_\_\_\_

6. Jumlah pendapatan bulanan anda?

Tiada Pendapatan	[      ]	Bawah RM1,000	[      ]
RM1,001 – 2,000	[      ]	RM2,001 – 3,000	[      ]
RM3,001- 4,000	[      ]	RM4,001- 5,000	[      ]
Melebihi RM5,001	[      ]		

7. Berapa lama anda menetap di Lenggong?

Kurang 5 tahun	[      ]	6 – 10 tahun	[      ]
11 – 20 tahun	[      ]	21 – 30 tahun	[      ]
Lebih 30 tahun	[      ]		

8. Adakah anda dilahirkan di Lenggong?

Ya      [      ]      Tidak      [      ]

9. Namakan kampung atau taman perumahan anda?

\_\_\_\_\_

10. Pernahkah anda melawat Muzium Arkeologi Lenggong?

Ya      [      ]      Tidak      [      ]

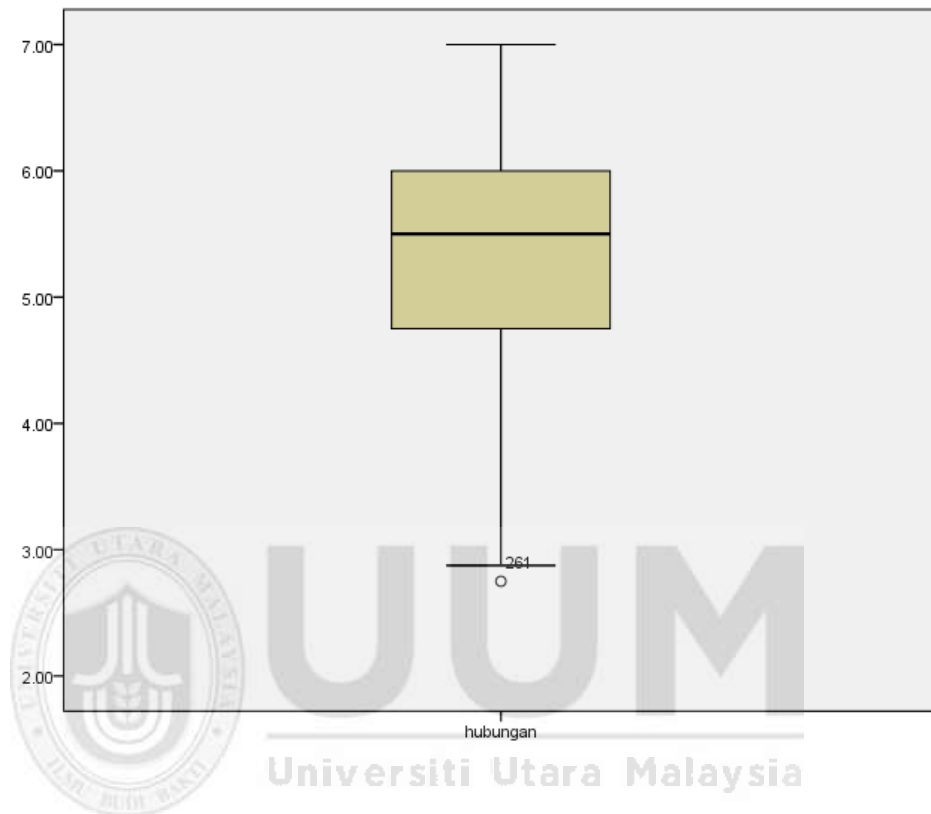
11. Pernahkan anda melawat tapak arkeologi Lenggong?

Ya      [      ]      Tidak      [      ]

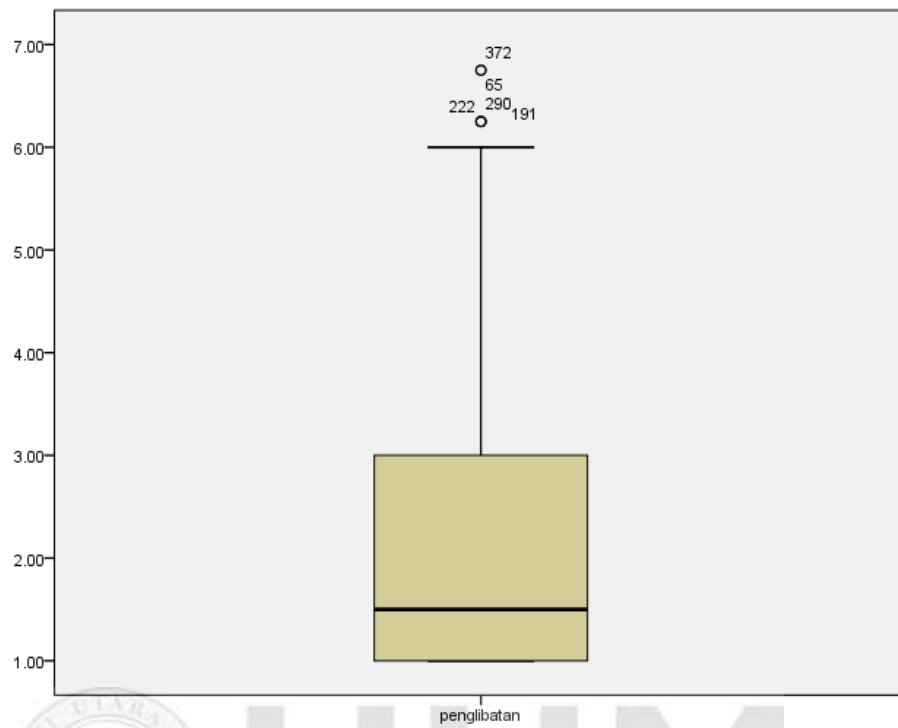
----- SEKIAN, TERIMA KASIH -----

## APPENDIX C

### Box Plot for Univariate Outlier

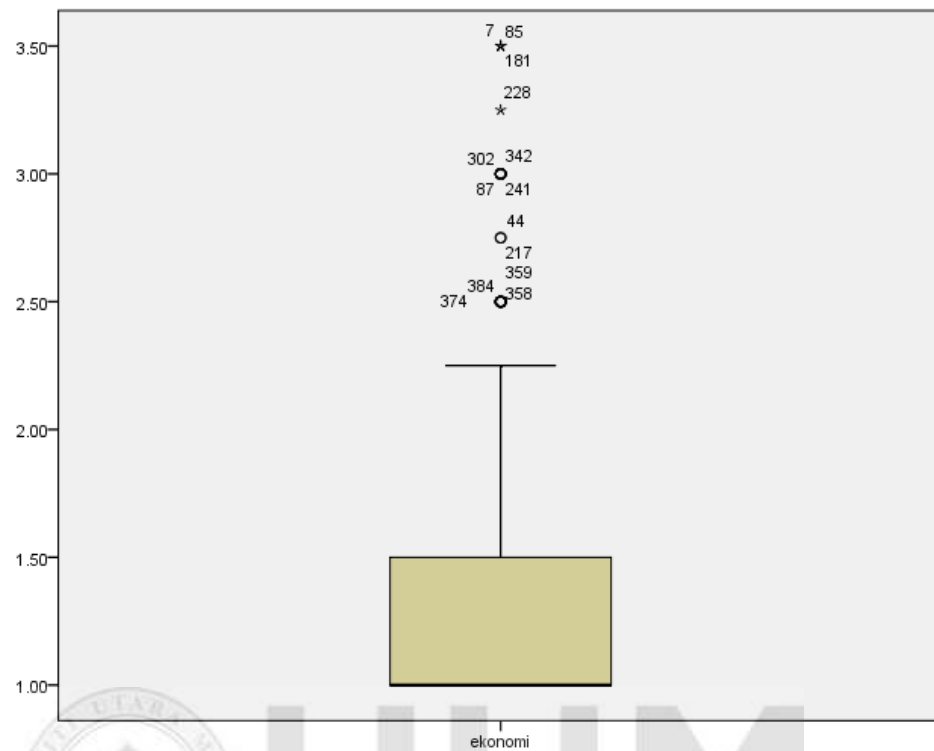


Box Plot of observed univariate outlier (community attachment)

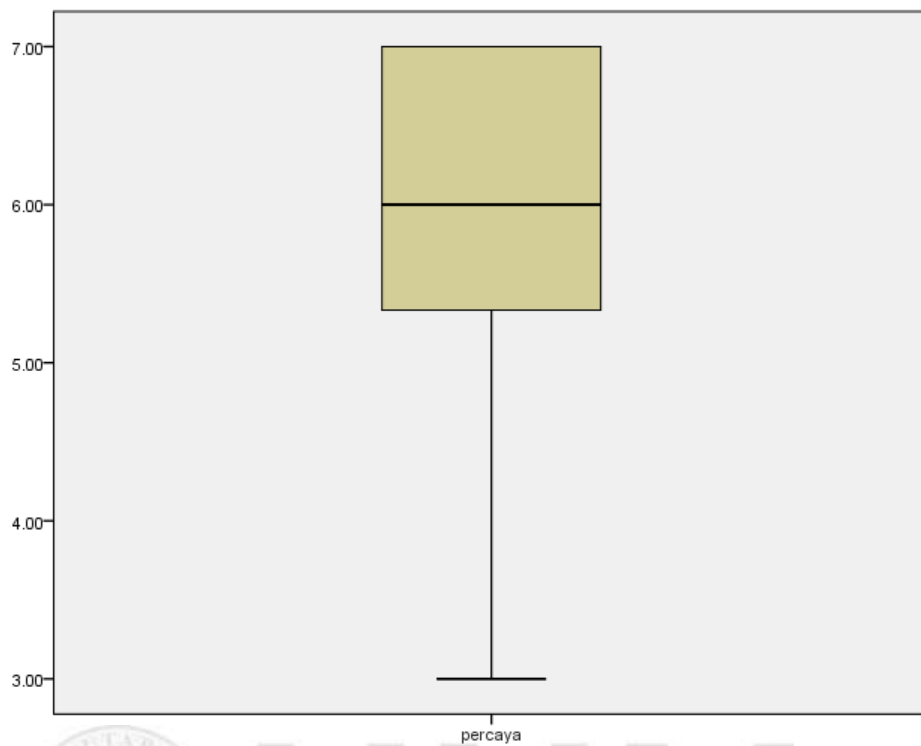


Box Plot of observed univariate outlier (community involvement)



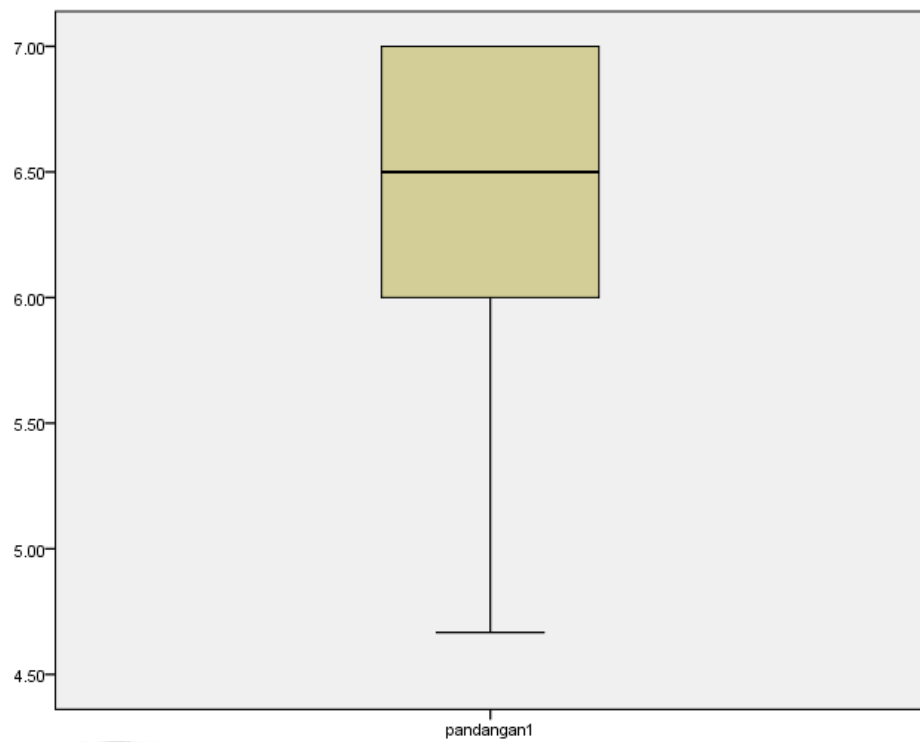


Box Plot of observed univariate outlier (perceived local economic condition)



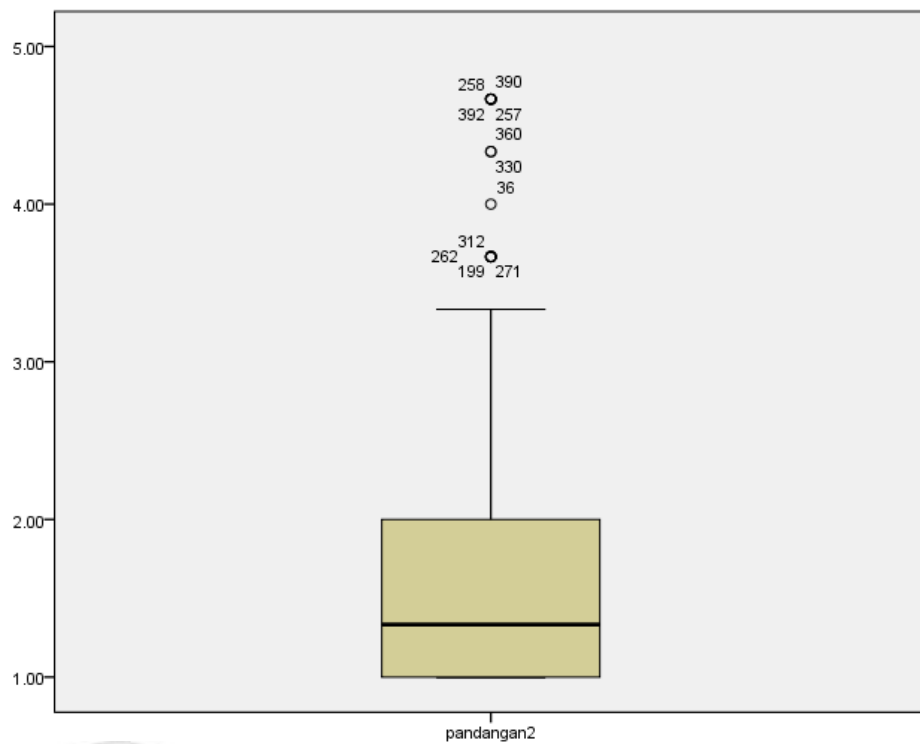
Box Plot of observed univariate outlier (trust in government institutions)





Box Plot of observed univariate outlier (perceived benefits of WHS)

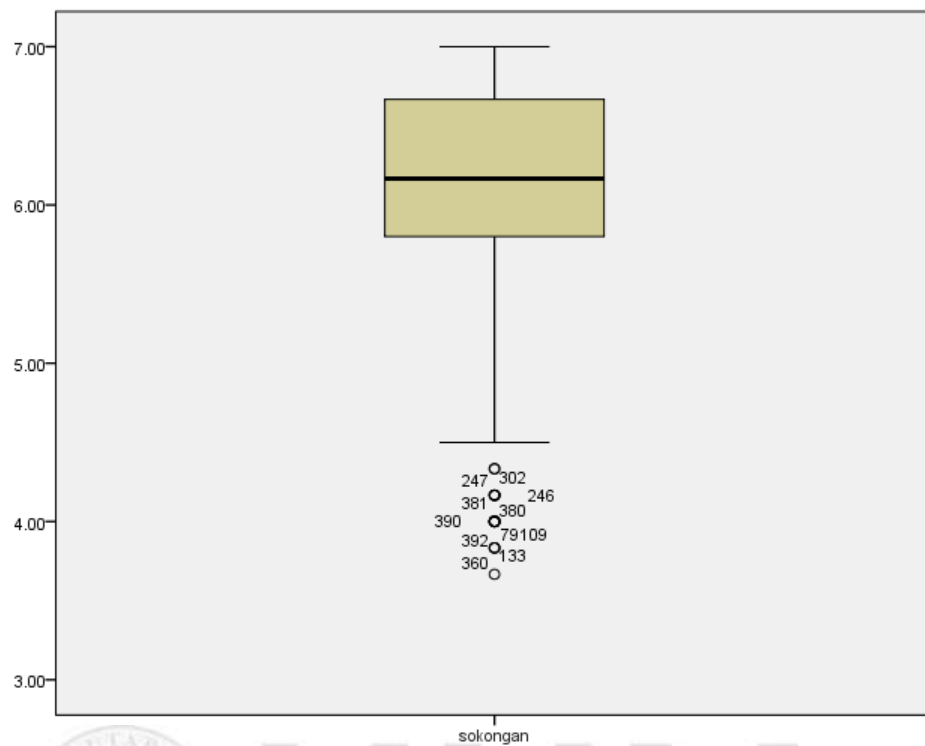




Box Plot of observed univariate outlier (perceived costs of WHS)



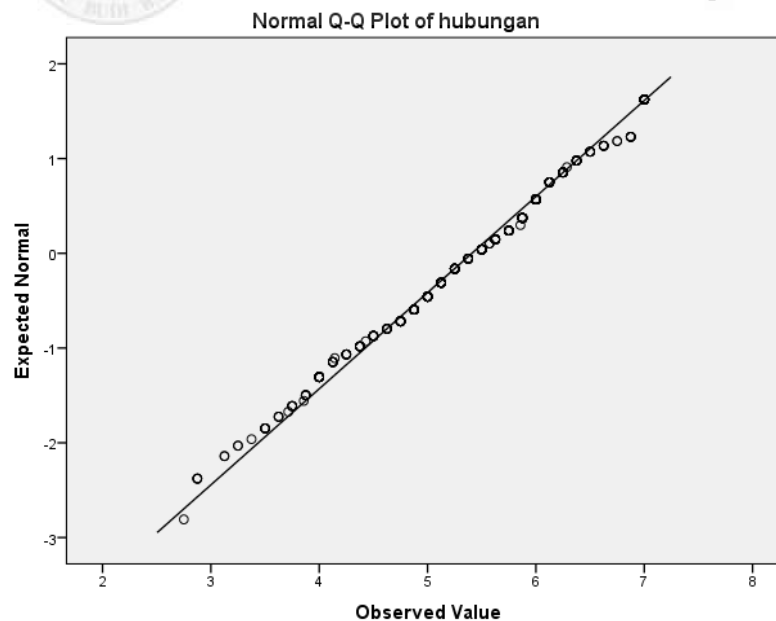
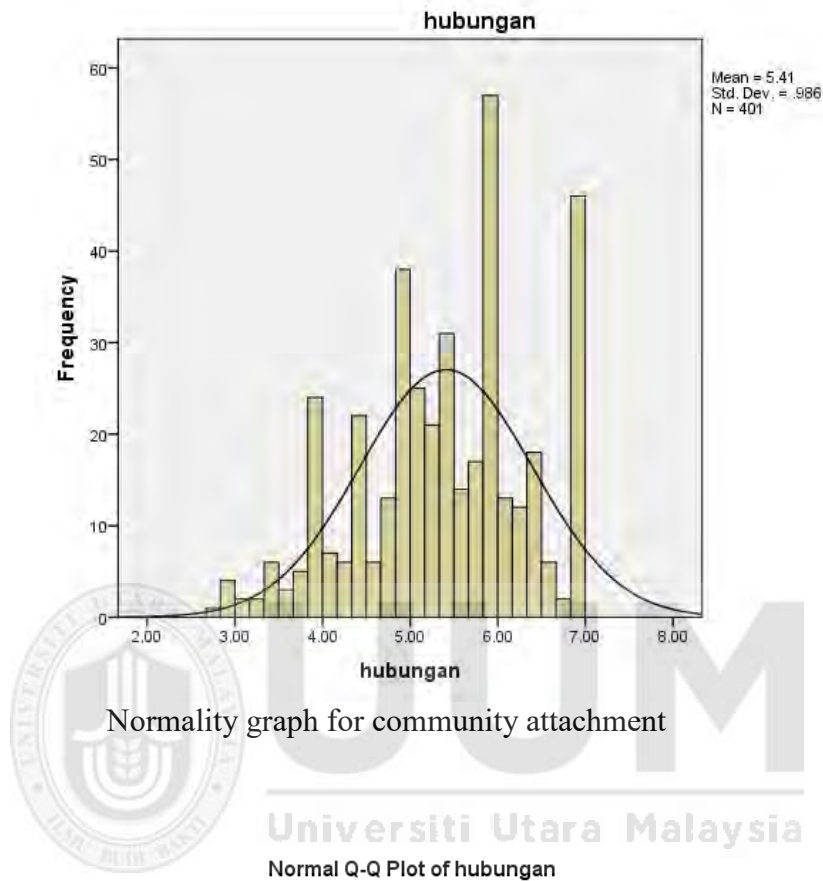




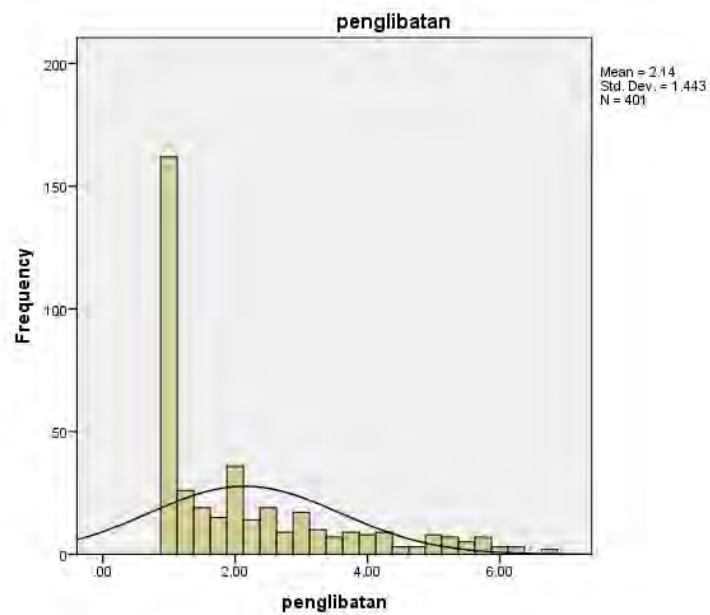
Box Plot of observed univariate outlier (support for sustainable tourism development)

## APPENDIX D

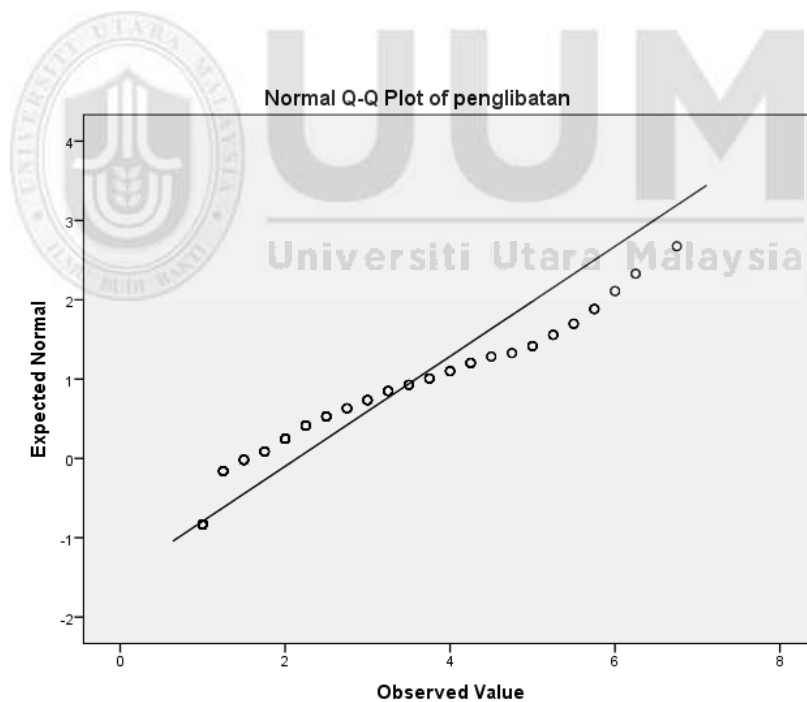
### Normality Test Graphs and Plots



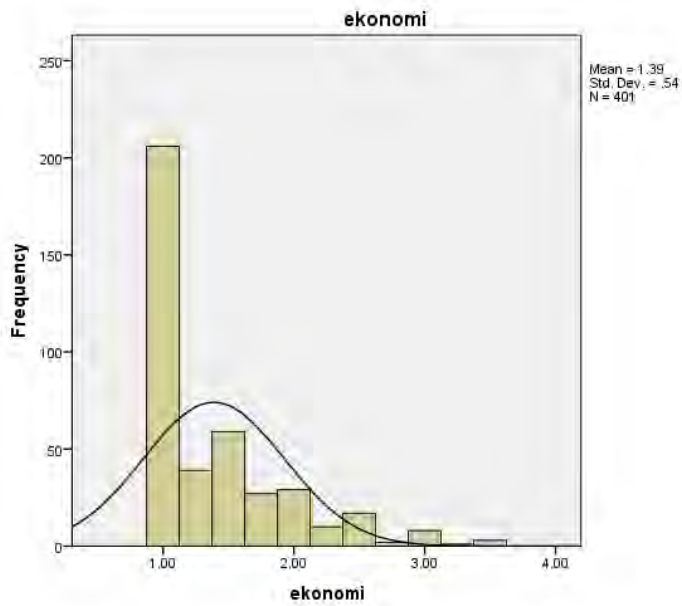
Normal Q-Q Plot indicating normality of observed variable (community attachment). The dots are scattered very close to the straight line indicating the data is normally distributed.



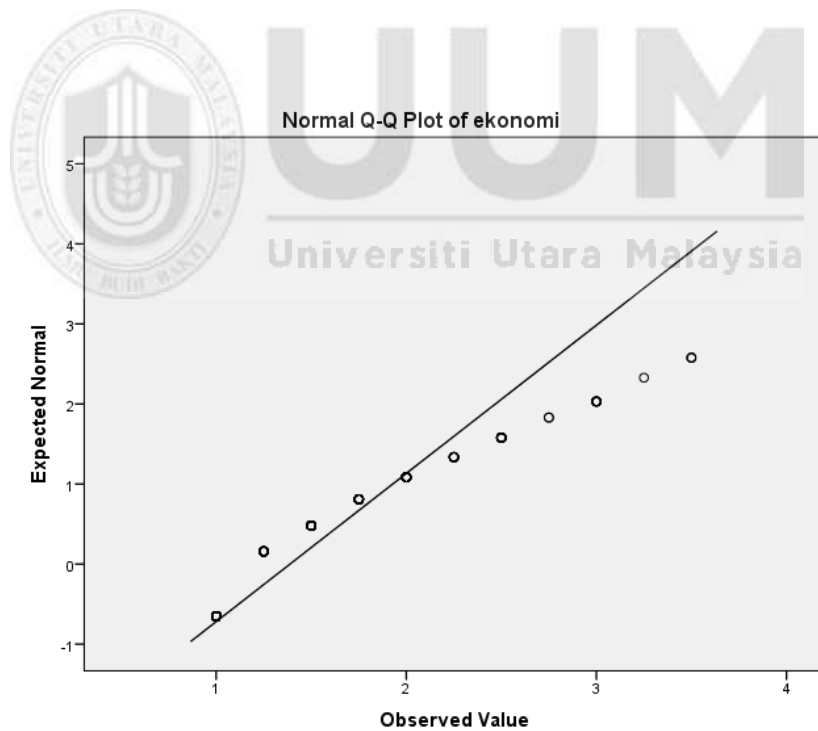
Normality graph for community involvement



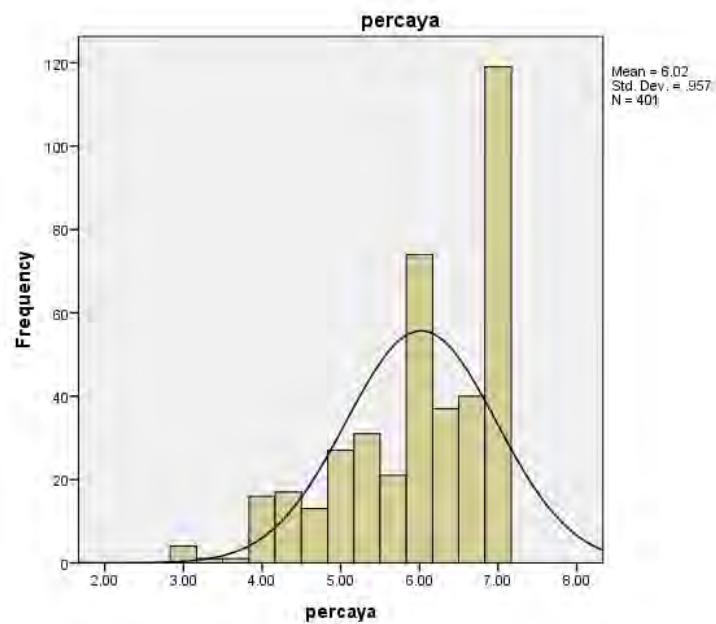
Normal Q-Q Plot indicating normality of observed variable (community involvement). The dots are slightly deviated from the straight line but still within the range of normal distribution.



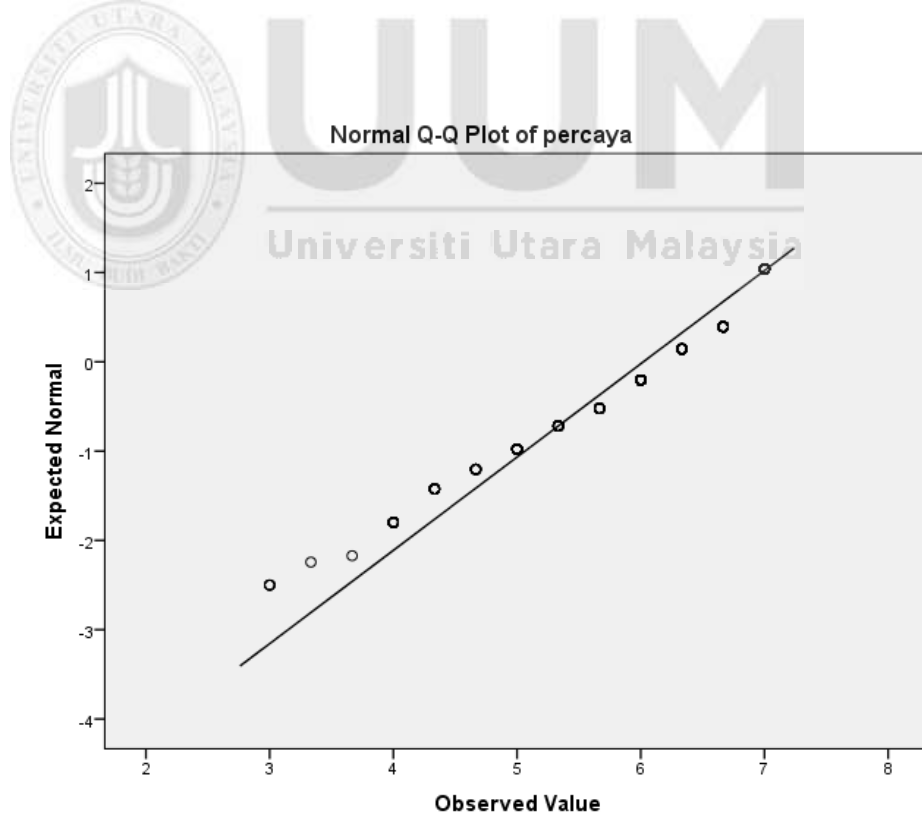
Normality graph for perceived local economic condition



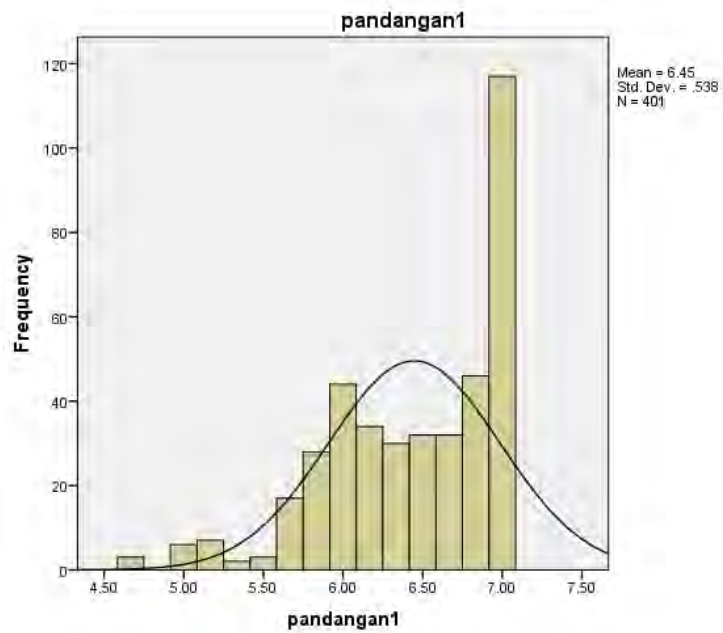
Normal Q-Q Plot indicating normality of observed variable (perceived local economic condition). The dots are slightly deviated from the straight line but still within the range of normal distribution.



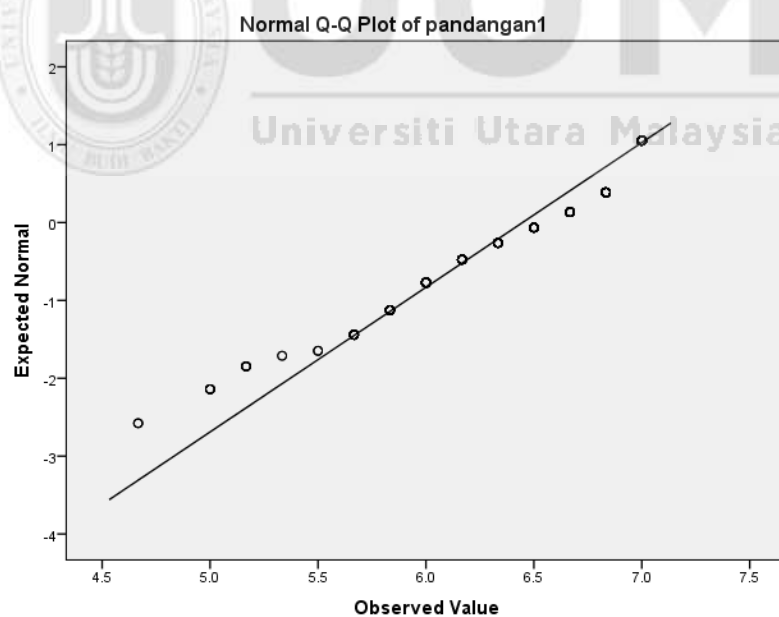
Normality graph for trust in government institutions



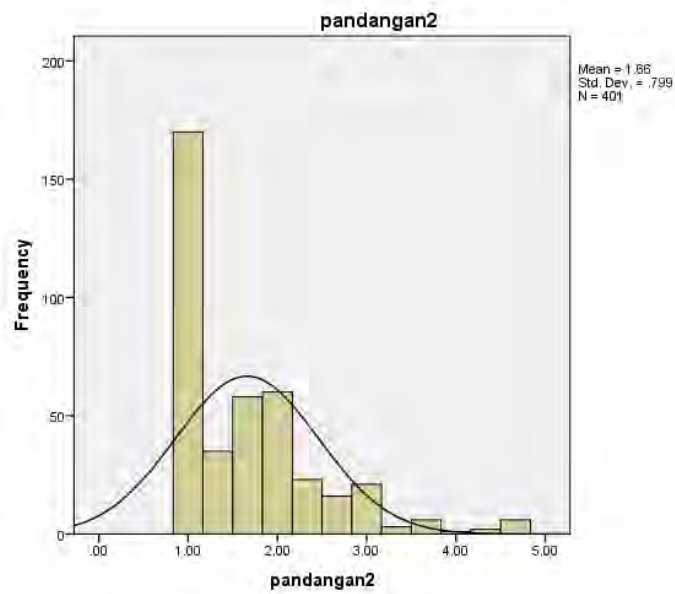
Normal Q-Q Plot indicating normality of observed variable (trust in government institutions). The dots are scattered close to the straight line indicating the data is normally distributed.



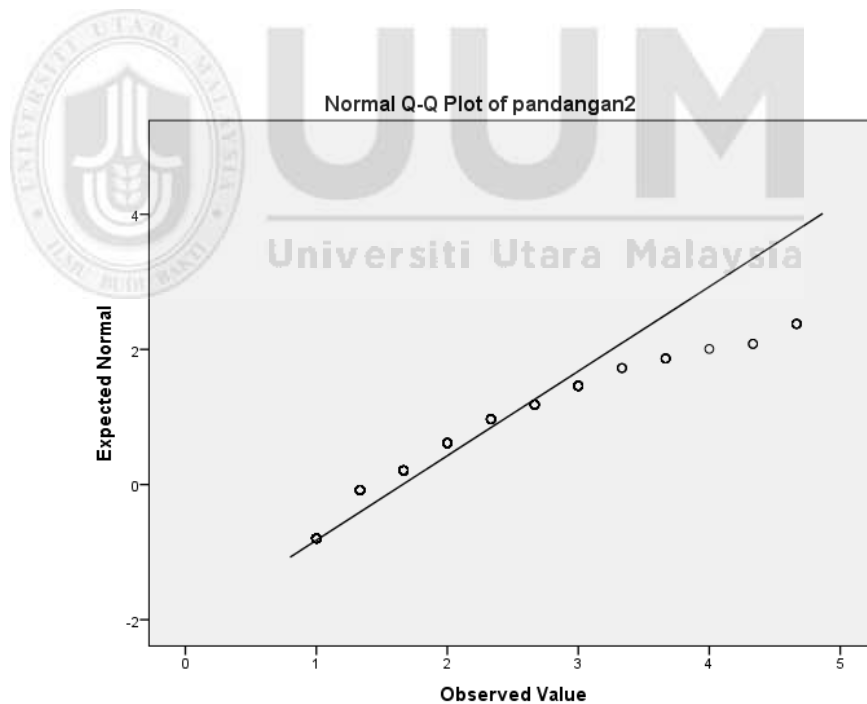
Normality graph for perceived benefits of WHS



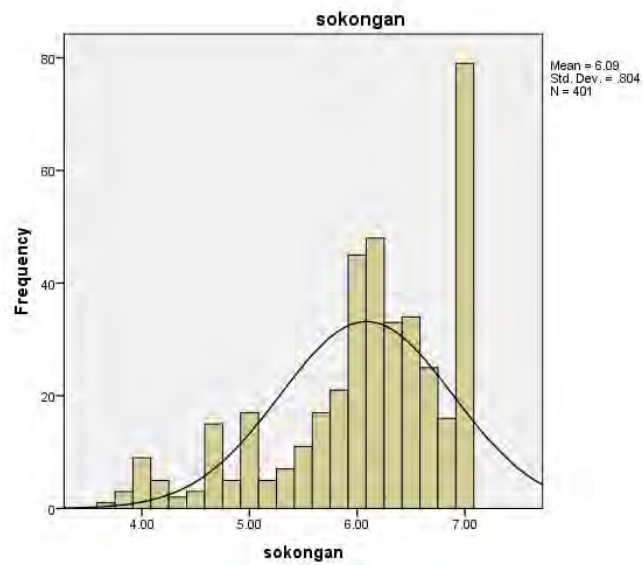
Normal Q-Q Plot indicating normality of observed variable (perceived benefits). The dots are scattered close to the straight line indicating the data is normally distributed.



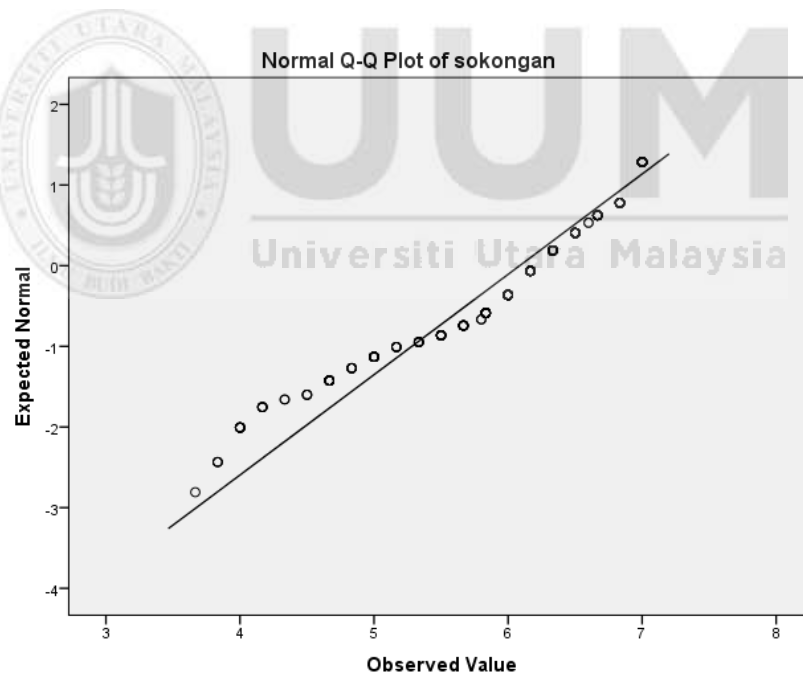
Normality graph for perceived costs of WHS



Normal Q-Q Plot indicating normality of observed variable (perceived costs of WHS). The dots are slightly deviated from the straight line but still within the range of normal distribution.



Normality graph for support for sustainable tourism development

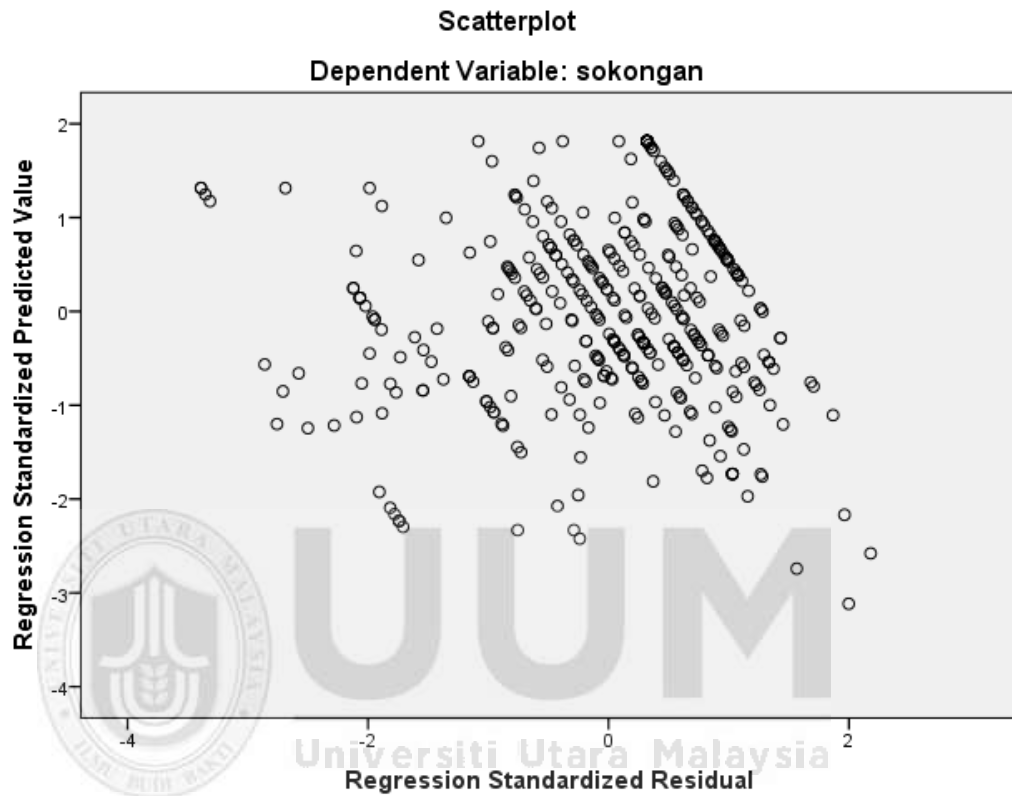


Normal Q-Q Plot indicating normality of observed variable (support for sustainable tourism development). The dots are slightly deviated from the straight line but still within the range of normal distribution.

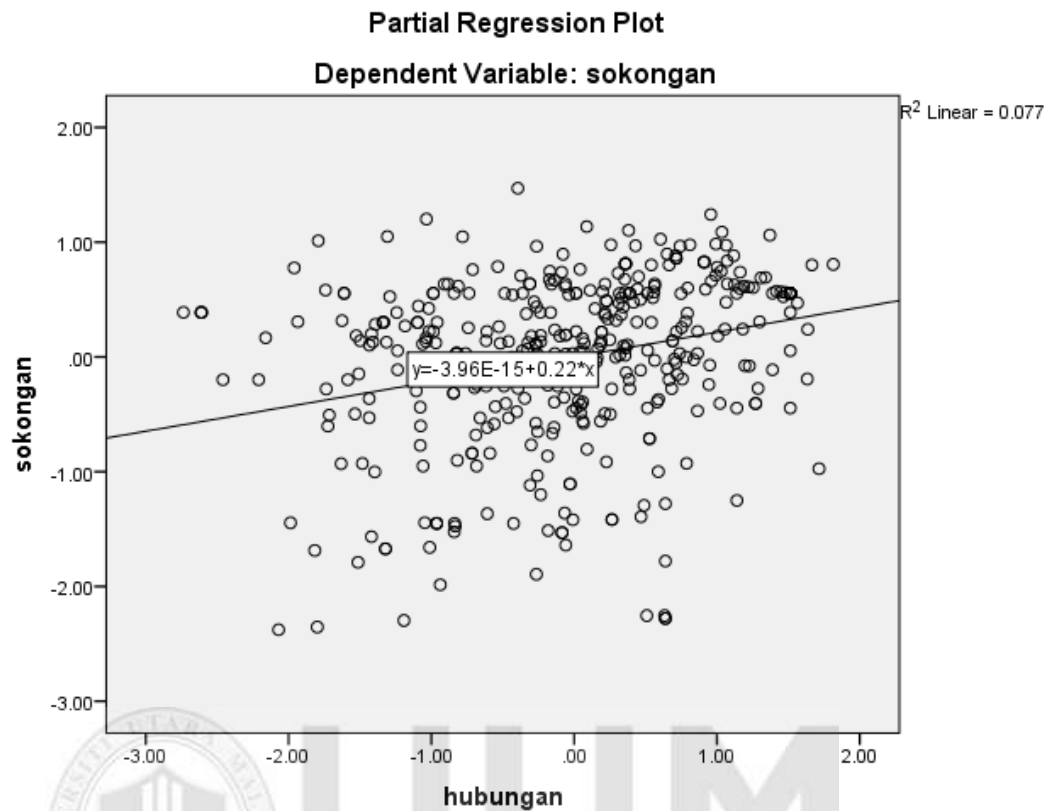


## APPENDIX E

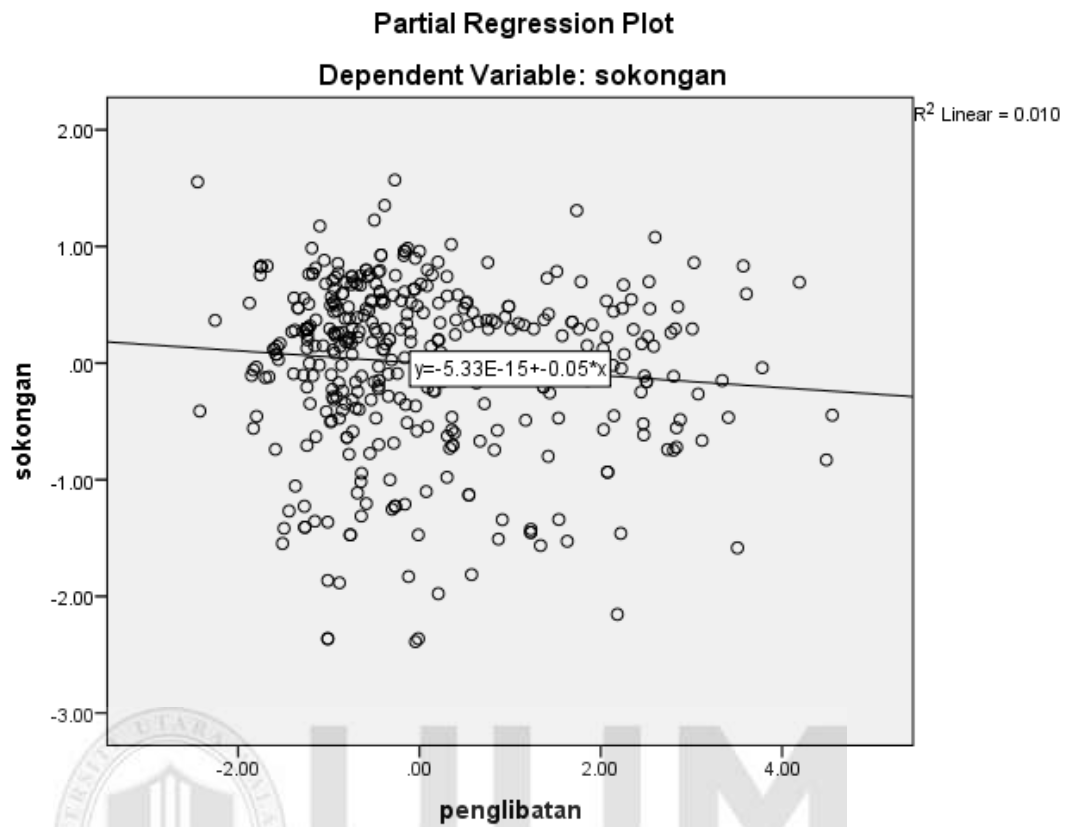
### Linearity of Phenomenon Scatter Plot



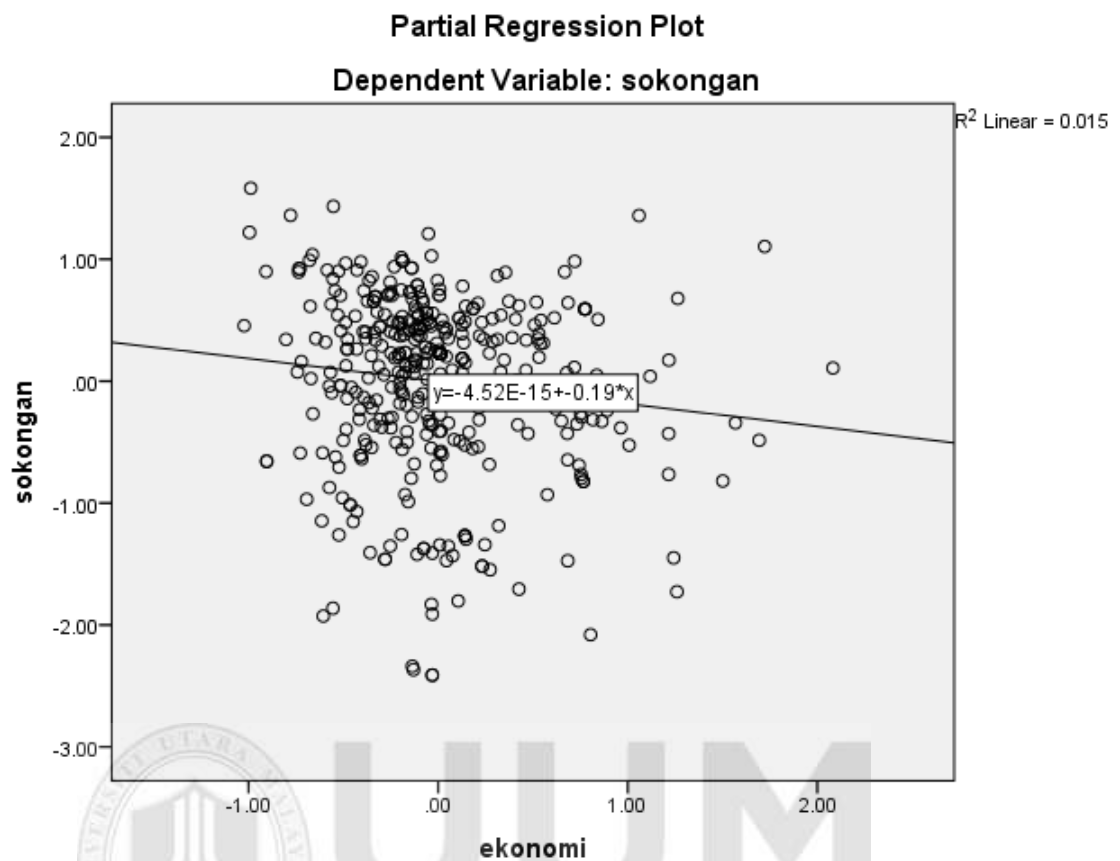
Scatter plot (independent variables vs. support for sustainable tourism development)



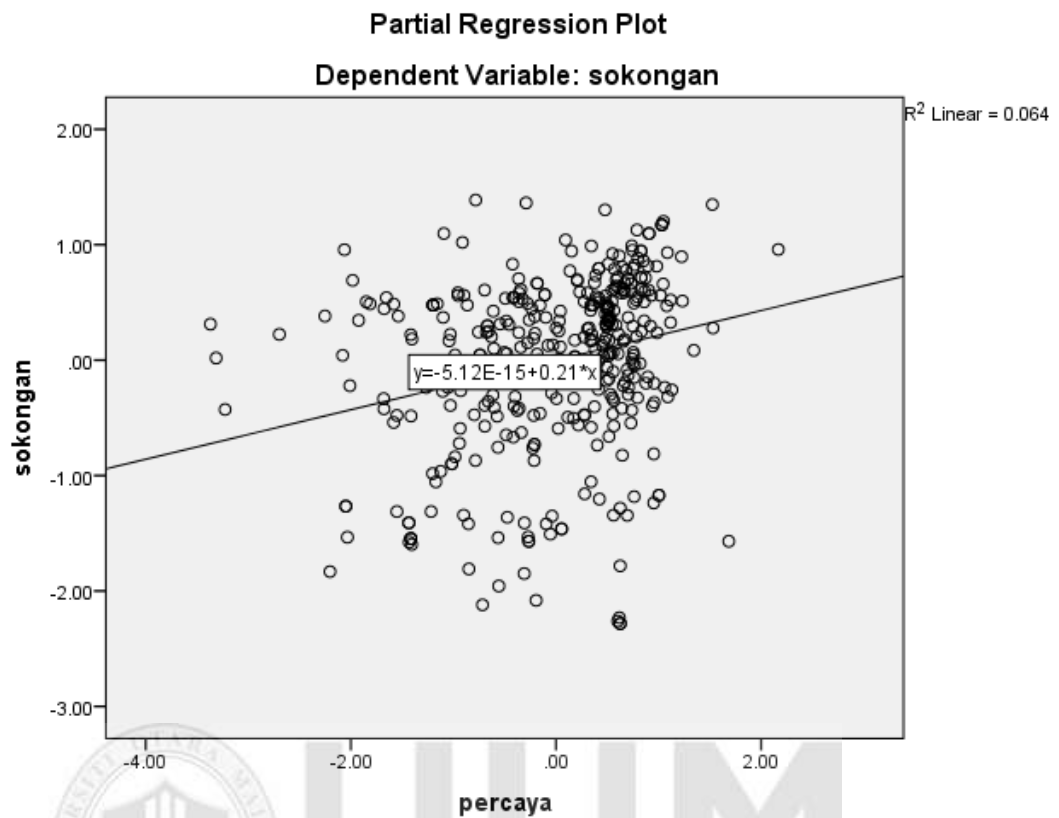
Partial regression plot indicating linearity in regression (community attachment vs. support for sustainable tourism development)



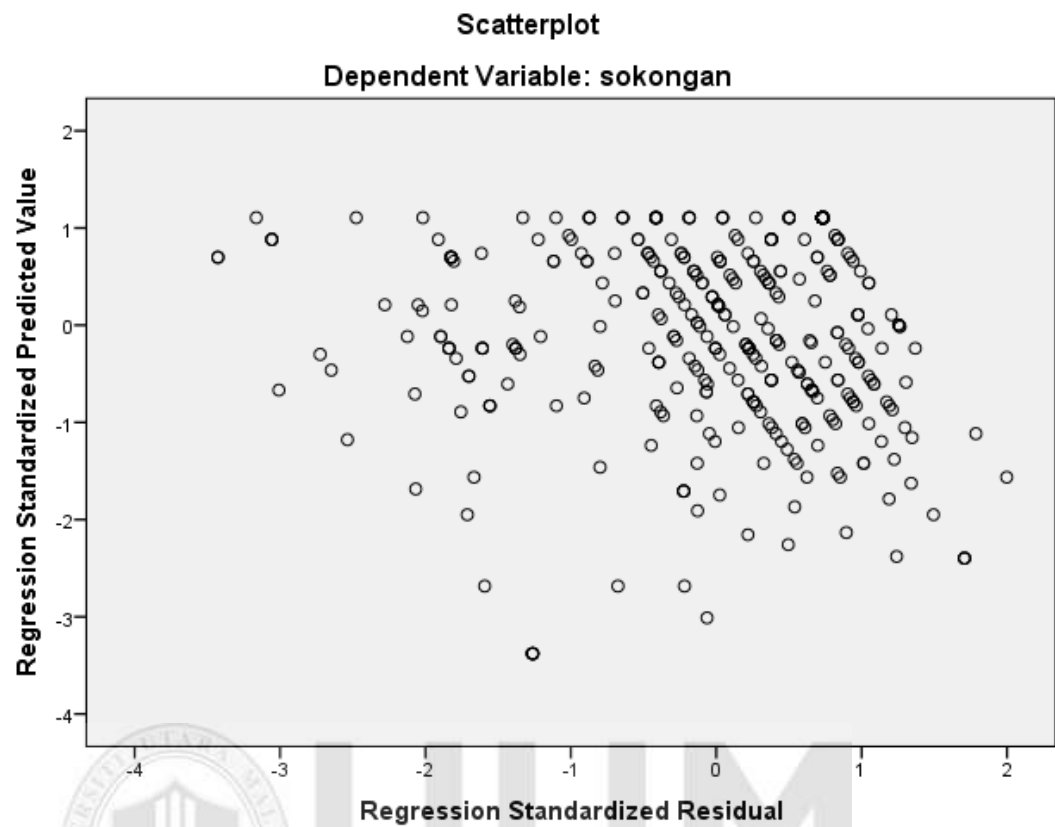
Partial regression plot indicating linearity in regression (community involvement vs. support for sustainable tourism development)



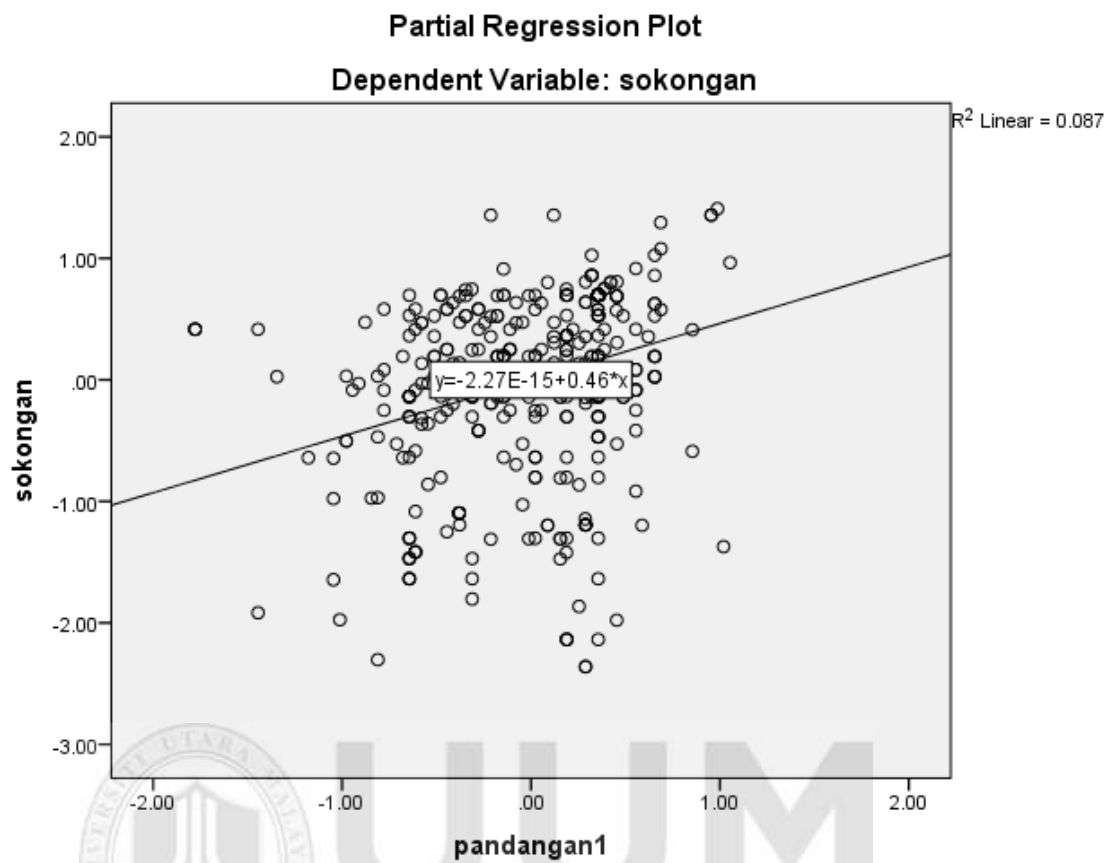
Partial regression plot indicating linearity in regression (perceived local economic condition vs. support for sustainable tourism development)



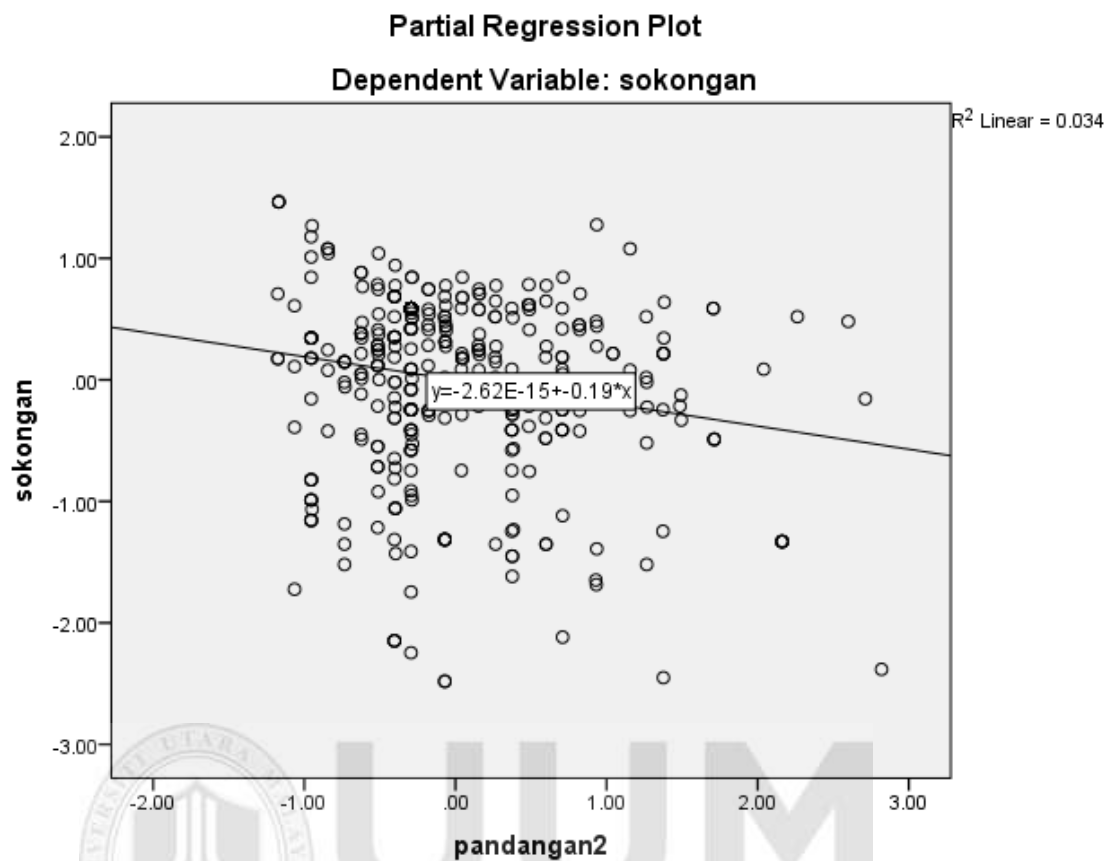
Partial regression plot indicating linearity in regression (trust in government institutions vs. support for sustainable tourism development)



Scatter plot (mediating variables vs. support for sustainable tourism development)



Partial regression plot indicating linearity in regression (perceived benefits of WHS vs. support for sustainable tourism development)

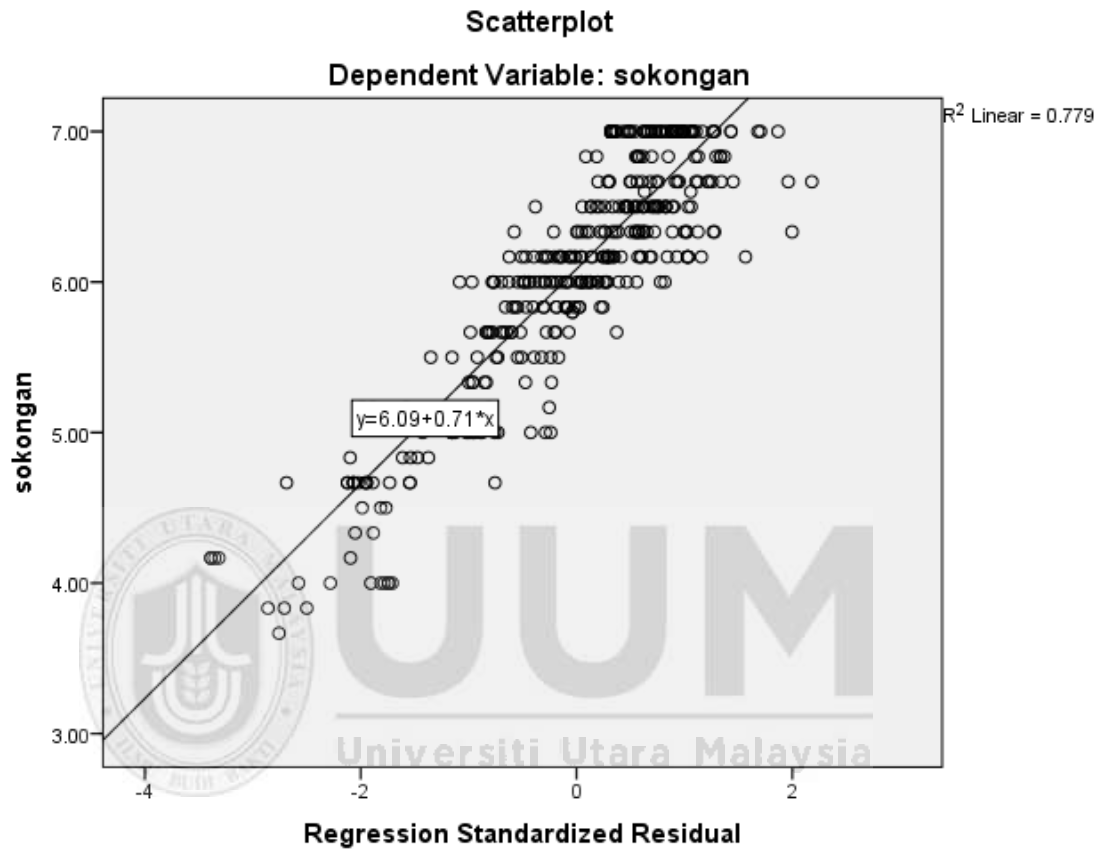


Partial regression plot indicating linearity in regression (perceived costs of WHS vs. support for sustainable tourism development)

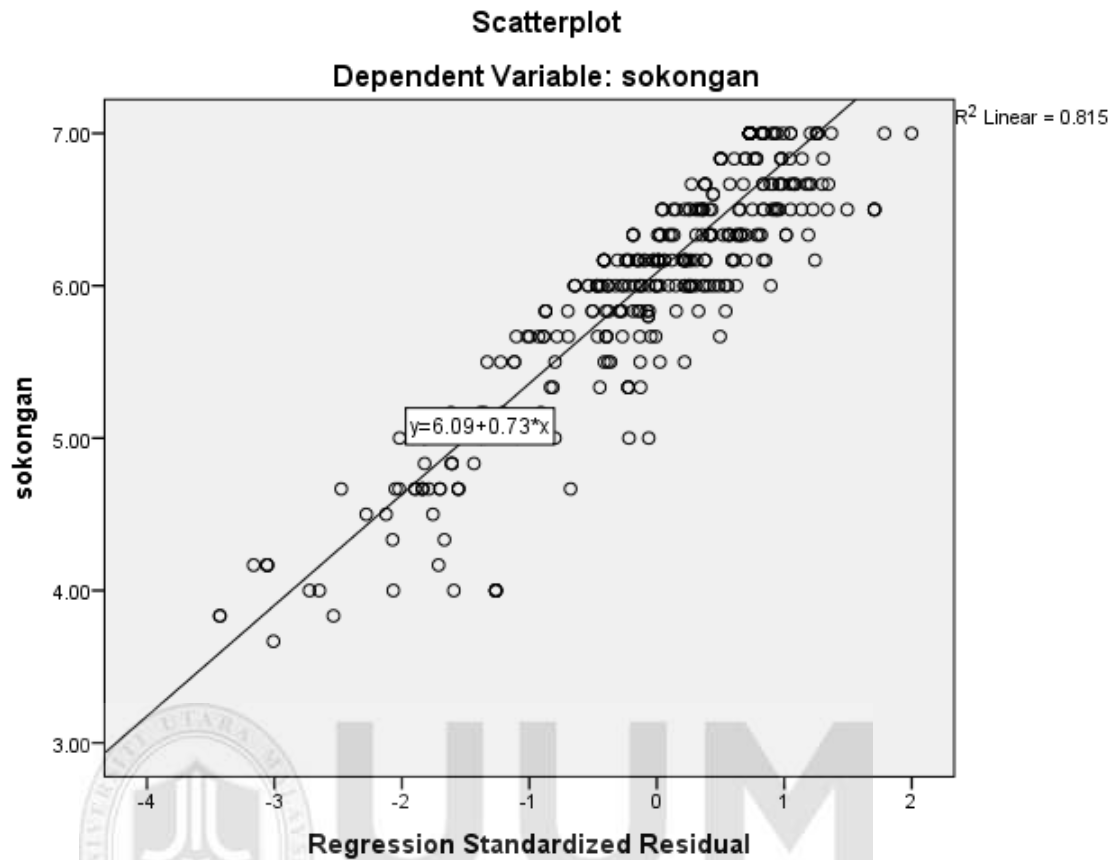


## APPENDIX F

### Homoscedasticity Scatter Plot



Homoscedasticity scatter plot (independent variables vs. support for sustainable tourism development). The amount of error (distance from the straight line) is consistent without too much of deviation as it moves further up the line, thus indicating the data is homoscedastic.



Homoscedasticity scatter plot (mediating variables vs. support for sustainable tourism development). The amount of error (distance from the straight line) is consistent without too much of deviation as it moves further up the line, thus indicating the data is homoscedastic.